

American Gas *Association* MONTHLY

Challenge of War Tests Faith

Washington Defense Training

Rate Adjustments in Wartime

Gas Selling in an Emergency

Cutting Motor Vehicle Costs



March

1942

VOLUME XXIV NUMBER 3



A WAR MESSAGE to ALL EMPLOYERS

★ From the United States Treasury Department ★

WINNING THIS WAR is going to take the mightiest effort America has ever made—in men, in materials, and in money! Every dollar, every dime that is not urgently needed for the civilian necessities of food, clothing, and shelter, must, if we are to secure final Victory, be put into the war effort.

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- 4 It reduces the percentage of Defense financing that must be placed with banks, thus putting our emergency financing on a sounder basis.
- 5 It builds a reserve buying power for the post-war purchase of civilian goods to keep our factories running after the war.
- 6 It helps your employees provide for their future.

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ADDRESS.....
NUMBER OF EMPLOYEES.....





**American Gas
Association**
 MONTHLY

CONTENTS FOR MARCH 1942



While industry adjusts itself to radical wartime changes, there is also a more or less violent upheaval of personal lives from their long-established routines. As President Hawley in an eloquent expression of basic concepts views it, the challenge of war is a test of faith; faith in ourselves, our institutions and our ideals. . . . As the government moves to restrict the use of natural gas, local utilities are preparing for any emergency. The Washington company has a full-time committee working on a defense program which emphasizes personnel training. The guiding principle: "Prepare for the worst and hope for the best." . . . Rate adjustments were necessary during the last war, they're bound to be important in this war. Messrs. Phillips and Henry, longtime members of the A. G. A. Rate Committee, give thoughtful advice on this touchy question. . . . A timely bit of valuable information is contained in that letter from England on page 93. Don't fail to read it. . . . Useful tips on how to cut costs and conserve equipment in motor vehicle departments highlight the splendid contribution of the General Accounting Committee in this issue. . . . Mr. DeBard's analysis of gas promotion is a realistic summary of industry's most progressive thinking.

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SUBSCRIPTION · \$3.00 A YEAR

Published eleven times a year by the American Gas Association, Inc. Publication Office, American Building, Brattleboro, Vt. Publication is monthly except July and August which will be a bi-monthly issue. Editorial Offices, 420 Lexington Avenue, New York, N. Y. Address all communications to American Building, Brattleboro, Vermont, or to 420 Lexington Ave., New York, N. Y. All manuscript copy for publication should be sent to the editorial offices in

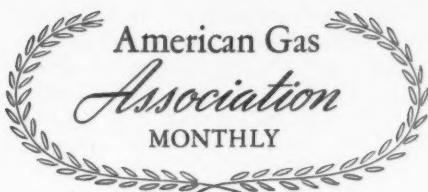
New York. The Association does not hold itself responsible for statements and opinions contained in papers and discussions appearing herein. Entered as Second Class Matter at the Post Office at Brattleboro, Vermont, February 10th, 1922, under the Act of March 3, 1879.

Cable Addresses: American Gas Association
AMERIGAS, NEW YORK
American Gas Association Testing Laboratories
AMERGASLAB, CLEVELAND





A striking picture of fittings on a high pressure gas well in Oklahoma, sometimes referred to as a "Christmas tree." Photographed by Ruth Canaday, Oklahoma Natural Gas Company, this picture is the March winner in the contest for A. G. A. MONTHLY frontispiece illustrations.



JAMES M. BEALL, *Editor*

TEST OF FAITH A Basic Conception of the Challenge of War

IT is only a few years ago that we in America were a fairly happy people. That was before certain disturbing economic theories were put into practice, some of our natural freedoms restricted, and labor legislation and kindred problems "loomed large" on the horizon.

Then, in addition to our troubles at home, hellish Hitlerism lifted its ugly head, and almost overnight drove civilization back a thousand years to blacker blackness than that which covered the earth in the Dark Ages.

And now America has been forced into conflict,—a gigantic, hideous death-struggle between the forces of Good and Evil. During the last decade in foreign lands, and even in America in some measure, Might has held sway over Right. Now, however, Right is coming to the front and is fighting desperately to gain control.

•

What a tragic failure, seemingly, of the life of that lonely Young Man who two thousand years ago brought the world his message of peace and good will among men! What a test of faith to hold true to those Christian principles which, as we thought, during all these centuries had been molding the lives of the peoples of all lands, so that many believed that world brotherhood was not far away!

No matter what we may do or where we may be, conditions at home and abroad stare us in the face and stagger our imagination. But when it is all over, and Good sits in judgment upon Evil, what will the conditions in the world be, and what will they be here in the United States? Will we have lost here what we gained for the rest of the world? Present political, social, and economic conditions, ever increasing centralized power and control, unrest caused by the grouping of people into antagonistic classes,—these and other facts paint an ominous picture upon the fabric of post-war American life. Because of all these things, uncer-

By GEORGE S. HAWLEY
President, *American Gas Association*

tainty and apprehension enshroud us, but we must beware lest we draw wrong conclusions. Remember, the good that remains in our part of the world far outweighs the bad.

Perhaps the very fact that we have been deprived of some of the things we formerly enjoyed, that before us are many trials and tribulations, and now we face the most stupendous conflict of all time, may make us more appreciative of the things that remain,—like the little boy bereft of his sight who was able to see things that others failed to observe. You remember the story about the little blind boy who took a walk with his two small sisters, each holding one of his hands. After a while they returned home and were greeted by their mother, who said: "Did you have a pleasant walk, and what did you see?" One of them said: "I saw some candy in the window and I wanted it." The other said: "I didn't see anything, I was looking at my feet all the time so that I wouldn't dirty my new shoes." The blind boy said: "It was a beautiful walk, mother. Everybody was so kind to me. We walked way out to where the woods are; big tall pine trees, I know for I smelled them, and I heard the wind singing in their branches way up high. A bird had built her nest in the top of one of the trees, I heard her calling to her babies; and it was such a pleasant day, for the sun was shining warm on my face."

•
We are all inclined to look down upon the dark side of things. It may be, if we did look up, that we might see some of the many rights and privileges which are still ours. This is not an easy thing to do today, with all the world in turmoil and distress, because some things can be seen only through the eyes of faith.

I have called attention to these solemn things, because he who knows the obstacles ahead is twice armed. But in order to succeed he must have faith and courage. I must admit that my faith in eternal things has been shaken, and perhaps most of us have been affected in the same way

to some extent. But we must keep the faith that is ours and build upon it until it becomes strong enough to "remove mountains." We must, we will press on, keep on, hope on, fight on, as in the poem by Grenville Kleiser, with which you are familiar.

"Press on! Though mists obscure
The steep and rugged way,
And Dark'ning doubt besets—
Soon dawns the brighter day.

Keep on! Though hours be long,
And days deep-fraught with woe,
Let patience do her perfect work,
And vanquish every foe.

Hope on! Though all seems lost,
And threatening storms beat high,
Have faith! Be still and know
That God is ever nigh.

Fight on! Though fear assails
And panic grips the heart,
The battle we will surely win
If we but play our part."

Now that we have looked at the black part of the picture let us see what the bright side discloses,—like George Innis' marvelous painting of what would be a dark and forbidding forest except for one ray of effulgent sunshine which makes glorious the focal point of the scene. So the light of Divine beneficence shines upon America and illuminates untold blessings, blessings which we hope all peoples of the world may enjoy when true and lasting peace shall finally come to all mankind.

America's Heritage

I know that I need not mention in detail these things which make America the most favored nation, for they quickly flash through our minds—the four great freedoms discussed by Churchill and Roosevelt at their first meeting, and we gladly add others to them; but let me put it all in a word: our hands, our minds, our hearts, our souls are free, limited only in such respects and to such degrees as is believed by the government to be for the best interests of all. "We live, we move, we have our being" in God-given freedom.

And now we have considered both the dark and the light; nevertheless, balancing them as we may, we realize that the people of the world, of which we form a most important part, must travel a long and horrendous road

before we can see Peace written upon the distant horizon, and knowing this we feel our impotence and wonder what we can do to help. Well, Kipling once said:

"The wisest thing, I suppose,
That a man can do for his land,
Is the work that lies under his nose
With the tools that lie under his hand."

That means, except for those who have been called to special tasks in direct connection with war and defense the rest of us are doing the very best possible for our land by continuing with our present duties as gas men and as useful citizens in other ways.

Our Contribution

The gas man of today has many things under his nose and many tools under his hand, so that he can and must stick to his work, adding new duties and responsibilities to the limit of his endurance. There is one thing in particular right at hand which our industry is equipped to do, is doing, and will continue to do: Those of us who are in defense areas will serve industry to the limit, for our fuel is absolutely essential in the thousands of processes used in making war material. It is necessary also for the health and comfort of millions of defense workers, to give them food properly prepared, to keep it at the right temperatures by gas refrigeration, to heat water which they must use, and in many thousands of cases to heat their homes.

As to those who are not in defense areas, their principal contribution to the great cause which is now ours is to keep on supplying their customers as best they can under the restrictions and limitations which have been and will be imposed upon them. This is vitally important, because no part of our body politic can suffer unduly without affecting the whole.

Another thing, and of which I am very proud, is that gas executives throughout the country are truly men of affairs in their own communities. I could mention men right around here, men listening to me now and others whom you all know, who are not only performing their own duties with high efficiency, but also carrying heavy burdens of city, state and nation. And all over the country literally thou-

sands of our men are on Civilian Defense Councils or other active committees, either as presidents, chairmen, or members. This work, in increased measure, must go on notwithstanding the business pressure under which we may be laboring.

These things are realized fully by the American Gas Association which is operating at highest efficiency, concentrating its efforts on those matters which are of prime importance in the successful prosecution of war. Adjustments have been and will continue to be made. Activities which have proved of great value in normal times must now be altered to fit prevailing conditions. There will have to be a realignment of emphasis, curtailment in some and expansion in other fields as the conduct of the war exerts a greater pressure upon us,—all to the end that the great gas industry shall contribute its best towards winning the war.

A. G. A. War Record

It is our good fortune that we are an organized industry operating nationally through a trade body to which war is no new experience. The American Gas Association under able and experienced leadership has always adapted itself to the special demands of the time, be it war, panic, or other social upsets, and it will do so in this conflict. Indeed, the Association's record so far in this present war merits special mention.

Doubtless you have heard others say it, but it is worth repeating, that two years before the actual shooting started in Europe, the Association began to collect and distribute valuable material from abroad covering protection of plants, distribution lines and other facilities from air raids and other enemy action, including sabotage. By thus anticipating the coming of war to our own country, the Association demonstrated admirable foresight and initiative.

These matters and others which may arise, in emergency or otherwise, will be considered and acted upon by our Committee on War Activities. This committee will direct all Association activities pertaining to the gas industry's part in the conduct of the war, and all sectional committees of the Association handling specialized mat-

ters relating to defense will report to it.

In this connection the Association's Washington office is rendering a highly valuable service in the matter of priorities and gas fuel requirements for the various Government projects, especially army camps and defense housing, and in assisting hundreds of gas men in their priorities problems.

As to appliances, sales, advertising,—these and other important subjects are covered fully in your convention program, and all of which are under consideration by the national association looking to a group solution. So it can be seen that as individuals, groups and associations we have a great responsibility to measure up to the exacting demands placed upon us. We have an unsurpassed opportunity to demonstrate our capacity to serve our country in its hour of great emergency.

Must Plan for Peace

But through all these strenuous activities we must not lose sight of what tomorrow may bring forth. We must remember that, in terms of years at least, present conditions are temporary, and we should try to peer into the future so that we may be somewhat prepared. We must be ready for the new world which will follow the terrible scourge which is now devastating the whole earth. What the new world will be no one can tell; but one thing is certain,—it must have as its basic virtue a true and lasting peace. Perhaps after all the dream of the Lonely Nazarene will become a reality, rising out of the ashes of our dead hatreds; and you and I and all the millions of men and women who love right and peace and justice will have a most important part to play in bringing about and maintaining that peace.

I do not stand alone in what I have said, for while I have, of course, expressed my own views, I know full well that they are in accord with the beliefs of the Directors of the American Gas Association and other leaders of the industry, including you gentlemen who are here today. Everywhere I go men high in authority are stressing the Christian virtues as the necessary and only basis of true life.

Now I realize that I have not said anything about the problems of our industry. A statement covering all these

matters appeared in our trade magazines about a month ago, with all of which you are familiar. I hope that you have not been disappointed because I have not gone into our industry's difficulties, and given you a lot of statistics. I felt that today there was just one thing I ought to say to you and to myself,—that we must ever go forward with unfaltering faith in our fight for the Right, not only the right to live of the peoples across the seas, but our American right to life, liberty, and the pursuit of happiness, so that sometime in the future, God grant that it may be soon, we can say in exultation "This is the victory that overcometh the world, even our faith."

Vitamins for Victory Booklet Issued



Printed in red, white and blue, this cover design of the Lone Star nutrition booklet is expressive and timely. The original size is 8½" by 11"

THE Lone Star Gas Company, Dallas, Texas, announces the publication of a nutrition booklet compiled by the home economics department under the direction of Albertine Berry. It has been released through the Lone Star Gas system by W. C. Grant, director of advertising and public relations.

A twenty-four page booklet, well illustrated in color, it describes in detail the essential foods and their distribution. Particular reference is made to economical buying and making dollars measure up to the nutrition yardstick. General rules to follow in meal planning, things to do and not to do in cooking, and general economy hints make the booklet of outstanding value. Single copies may be secured from the Lone Star Gas Company.

W. P. B. Acts to Increase Natural Gas Output

RESTRICTIONS on the spacing of natural gas wells have been liberalized by the War Production Board to promote increased output in the Appalachian region.

In conservation order M-68, the W. P. B. had forbade construction of new natural gas wells unless they followed a spacing pattern of not more than one well to 640 acres. Because of the great need for natural gas in war industries, especially in Cleveland, Pittsburgh and Youngstown, this order was revised to liberalize the natural gas production restrictions in the states of New York, Pennsylvania, West Virginia, Ohio and Kentucky.

New natural gas wells in these states may be drilled to the Onondaga limestone, Oriskany sandstone, or Devonian shale horizons if they follow a uniform well spacing pattern of one well to each 160 acres and to other horizons, except in a condensate field, if they follow a spacing pattern of not more than one well to each 40 surface acres. Other restrictions of new wells are included in the revised amendment for the protection of existing properties.

A. G. A. Suspends Dues for Members in Service

INDIVIDUAL members of the American Gas Association who enter the Military or Naval forces of the United States will retain their membership and receive full membership service without payment of dues for the duration of the conflict. This action was approved unanimously at the last meeting of the A. G. A. executive board.

Salvage Program

SINCE the American Gas Association announced on Jan. 14 its intention of acting as a clearing house for its members by putting unused equipment into service, a number of companies have responded and a considerable amount of material has been placed on the market for resale or exchange. This material was listed in full in the A. G. A. Information Service Letter issued Feb. 13.

Other companies have reported the disposition of substantial quantities of waste material of all kinds; one company disposed of approximately 90 tons of scrap iron and steel.

Member companies of the Association are urged to report not only the disposition of all such material but the amount and kind of materials involved for the information of the Industrial Salvage Section of the War Production Board.

Gas showrooms are being looked upon as very useful centers for general war-time services—Eileen Murphy, director of home service, The British Commercial Gas Association.

War Production Board Restricts Use of Natural Gas

THE War Production Board on February 16 ordered a curtailment in the consumption of natural gas and mixed natural and manufactured gas.

The action was taken to assure adequate supplies of gas for war production. It was necessary because of increased gas requirements for both war production and civilian use, coupled with the scarcity of materials that would be required if existing systems were expanded.

Parts of the order (L-31) apply to the entire country. They do not become operative until a gas shortage occurs or becomes imminent in any area.

Other parts of the order apply only to 17 states and the District of Columbia, where the need for curtailment is greatest. They become effective by March 1 but do not affect present uses of existing customers. That is, a consumer now using gas to cook or heat water is not restricted in such uses but he may not install a gas heating system in his home, store, or factory, or convert heating equipment now using other fuel to gas.

Manufactured Gas Not Affected

The order affects companies distributing natural gas or natural gas mixed with manufactured or artificial gas. It does not affect companies distributing only artificial or manufactured gas.

Gas companies operating in 17 states and the District of Columbia are ordered as follows:

1. They are prohibited from delivering gas for heating new homes, stores, factories or other buildings, unless the heating equipment is installed prior to March 1, 1942, or the equipment was specified in the construction contract and the foundation under the main part of the building is completed prior to March 1. This applies to a heating system intended to furnish all or the major part of the heat for a home or building. It does not apply to individual room heaters.

2. They are prohibited from delivering gas for the operation of heating equipment that has been converted from some other fuel to gas, unless such conversion is completed within 10 days after the issuance of the order.

Any utility or any governmental agency (such as a housing company) affected by this prohibition against new and converted installations, which considers that the available gas supply is adequate for all existing and estimated future war requirements as well as unrestricted civilian use until April 1, 1944, may apply to the Director of Industry Operations for exemption from this provision.

3. They are prohibited from delivering gas to any new non-residential consumer or increasing delivery to any existing non-residential consumer, unless: (a) such new or existing consumer has installed standby facilities sufficient to replace the new or increased delivery during periods of shut-

off; or (b) such new or existing consumer cannot reasonably use any fuel other than gas; or (c) approval shall have been granted in advance by the Director of Industry Operations for delivery to such new or existing consumer. This provision becomes effective 10 days after the issuance of the order.

The areas subject to the prohibitions just listed are:

Alabama (except the area served by the United Gas Pipe Line Co.)
Arkansas (only the area served by the Mississippi River Fuel Co.)
California
District of Columbia
Georgia
Illinois
Indiana
Kentucky
Maryland
Michigan
Mississippi (except the area served by the United Gas Pipe Line Co.)
Missouri
New York
Ohio
Pennsylvania
Tennessee
Virginia
West Virginia

Other provisions of the order apply to gas companies throughout the country. They

become operative only if and when a shortage exists or becomes imminent.

These sections provide:

1. Each utility operating in an area where a shortage exists or is imminent is required, insofar as practical, to integrate its system with other systems, so as to obtain maximum supply of gas.

2. If and when the supply of gas becomes insufficient and reduction to consumers becomes necessary, and in the absence of specific directions by the Director of Industry Operations, the utility supplying such area is required to take the following steps, in the order given:

(a) Reduce deliveries to all dump or surplus consumers not engaged in war production. Dump or surplus consumers are consumers whose gas service is subject to interruption during shortage periods.

(b) Operate as much of its available gas manufacturing equipment as is necessary to relieve the shortage.

(c) Reduce deliveries to all firm gas consumers who have standby facilities.

(d) Reduce deliveries to other consumers in such manner as to cause the least interference with war production. All possible measures will be taken before interference with war production is permitted.

Natural gas is practically the only fuel used in the shipyards on San Francisco Bay. Its acceptance has been almost 100 per cent.
—Fred J. Mahr

Gas Industry Blueprints for War



This drafting room at Surface Combustion Corporation—blueprinting for war production—typifies the part being played by Gas. Almost every metallic item used in war and in production machines requires heat treating. Gas heat-treating furnaces for virtually every conceivable type of munitions . . . shells, cartridge cases, bombs, gun barrels and mounts, armor plate, aircraft tubing, engines and other parts are designed here. While all machines have an important place in the Defense Program the importance of heat-treating furnaces and heating machines can hardly be over-emphasized. The gas-fired furnaces for defense sold in a recent three-month period by this company alone require approximately 110,000 therms of gas every 24 hours.

A HANDCLASP OF ALLIES ACROSS THE SEA

SOCIETY OF BRITISH GAS INDUSTRIES

Federation House,
Stoke-on-Trent
22nd December 1941

The President,
American Gas Association,
420 Lexington Ave.,
New York City.

Dear Mr. President:

A year ago your President, Mr. Beckjord, expressing the good wishes of the American Gas Association to Britain wrote "it looks as though we are getting closer to the struggle." That was indeed prophetic as the dramatic events of the past month have proved.

As President of the Society of British Gas Industries allow me to express through you to your members our sympathy with the sufferings and sacrifices which have been inflicted by an enemy whose lust for power has challenged your great nation. You are just putting on your armour and I am confident that under the leadership of President Roosevelt you will not lay aside the shield nor return the sword to its scabbard until you have conquered.

Democratic nations have many virtues but they have a cardinal fault. They believe that those who differ from them in political aims or in outlook are honourable and animated by decent human instincts. We know and you now know (unfortunately) how misplaced has been this faith.

As regards the duration of the war, we on our part are under no delusions. It is true we under-rated the reserves and strength of our enemies. It is equally true that we under-estimated how widespread and efficient was their poisonous propaganda, but those delusions have been swept away. What we never doubted is our ability to win. What we never questioned is our determination to face the sacrifices and to be endowed with strength to maintain the struggle until we have won through. We must and will dictate the peace; until we are able to do so this struggle must go on. We may lose our material wealth in prosecuting this war to a finish but we know that is as dust in the balances compared with the preservation of liberty and freedom. We also know that there can be no peace nor compromise with evil and injustice. We share with you the priceless heritage of being born free and under God we will live free—or die.

These are not the vapourings of a man who is outside the fighting age limit but is the conviction of every section of the British people. Nations, like individuals, grow their wisdom teeth by biting on the hard granite facts of life and experience. The unity of the great American nation was laid by the sacrifices of war. You, like us, will lay broad and sure the foundations of world peace and justice by the sacrifices of this war. It is a time when every man must do his duty with cheerfulness and with supreme confidence in his leaders and the cause. It is a time when we must shoulder the burden and tread the mountain path of duty. It will be long road but the vision at the end of that long trail will give to us the supreme satisfaction of knowing that we have done our duty in such a way that those who follow after will say, "They did not fail us!"

So, Mr. President, I take my leave of you as a colleague in an industry which is making a great contribution towards the equipment of our forces and the maintenance of the morale and contentment of our peoples. May God prosper your country and ours in this, our common cause.

Very sincerely yours,

Francis Joseph
President,
Society of British Gas Industries

AMERICAN GAS ASSOCIATION

420 Lexington Ave.
New York, N. Y.

January 29, 1942

Sir Francis Joseph, President
Society of British Gas Industries
Federation House
Stoke-on-Trent
England

Dear Mr. President:

I have just received, through the kindness of our former President Mr. Beckjord, your courageous and inspiring letter of December 22nd last.

It was my privilege to read your letter to two separate groups of members of our Association, and yesterday to our Board of Directors. It made a profound impression upon them all. The Directors wished me to express to you and your associates, and through you to the great people of Great Britain, their deep appreciation and admiration, in which I most sincerely join.

It is not often that current knowledge and history agree, but here is the exception: we all know full well, and history in the dim distant future will record the fact, that you at a time of unprecedented peril held back the hordes of evil in their march of murder almost to the shores of Britain. But for you, Christian civilization would have been dashed into the abyss of hopeless oblivion.

We rejoice that you are continuing the fight with renewed strength and success. America now joins you in a combat which will be fought until the possibility of another world conflict will be no more, and lasting peace shall finally be dictated by the true conquerors.

Things do not move here as fast as we would like, for another cardinal fault of democracies is that they never prepare fully for emergencies which are not both real and imminent. That time has passed. America is now moving forward with giant strides. Soon the skies will rain down upon the assassins just punishment for their heinous crimes, and the victory of Right over Might will be final and complete.

We join with you in unwavering faith and determination that we will conquer.

Sincerely yours,

George S. Hawley
President,
American Gas Association

Defense Training... Washington Speeds Program to Protect Gas Supply



Chief Coordinator H. B. Noyes shown with Chairman Robert T. Keith of the Washington company's Defense Program Committee. They are contemplating a chart on which is projected a three months' activity program. Each item to be performed is posted in the proper weekly column on this calendar; colored tabs designate specific defense activities.

DURING the first week of December, 1941, we created a Company Defense Program Committee to plan and coordinate defense activities of our companies and to coordinate and integrate those activities with the Civilian Defense organizations. Originally it had been hoped that sufficient time would be available to lay the groundwork for a carefully integrated defense program covering the entire company and its subsidiaries in nearby Maryland and Virginia. However, our sudden entry into the war on December 7 changed the picture altogether and made it necessary for us to take certain protective measures at once.

These included the creation of war emergency personnel organizations in the Production and Distribution Departments; skeleton crews were placed on duty at strategic centers and additional personnel were instructed to report there in case of emergency. Other preliminary steps were micro-filming important documents, adequately guarding plants and exposed pipe lines and

By HOWARD B. NOYES
*General Superintendent of Operations
Washington Gas Light Company
Washington, D. C.*

overhauling inter-departmental communication facilities.

The first phase of this company's defense program concerned immediate measures to protect personnel and property with facilities at hand. The second phase was the training of an Employee Defense Corps, now well under way. The third phase is creating a functional organization from among those trained in various defense procedures, supplying them with required materials and equipment and keeping them in a state of complete preparedness. Other phases of this program will conform to the dictates of time and circumstance. It is our objective to lay a firm foundation for defense, not only against the hazards of war but those of any future disaster.

The war has thrust upon the Washington Company a two-fold problem—meeting the large demands for gas that the rapidly increasing population has created as well as safeguarding the community's vital fuel supply against known and unknown perils of war. Under these circumstances operating problems exert continuous demands on the executive force of those departments. Because of this and be-

cause of the critical nature of the local defense problem, the latter has been assigned primarily to the Company Defense Program Committee whose members are serving on a full time basis.

Members of the committee maintain intimate contact with the central management of the company and heads of its various divisions. The latter assume an important role in Company Defense as consultants or Local Coordinators through whom defense activities affecting any section of the company are cleared. As Chief Coordinator the general superintendent of operations guides the basic course of the committee, representing the final point of view of the management on questions of policy.

Full-Time Organization

Chairman of the Company Defense Program Committee is Robert T. Keith who, through several years of organizing and directing the company's telephone service unit, has gained an intimate knowledge of all company departments. An engineer member of the committee is Ben F. Childs, normally assistant to the superintendent of the Street Department; also on the committee is Pat H. Butler, assistant to the manager of the suburban affiliates. Robert H. Lewis, of the new business staff, is a fourth member. All have been relieved of regular duties for the duration of their committee assignment.

In formulating its program the committee has been influenced by the principle: prepare for the worst and hope for the best.

Care is taken to examine proposed measures with considerable thought to their salvage value as permanent disaster procedure material. It is believed that one of the most beneficial by-products of the war can be a permanent organization and an estab-

- The war emergency organization of the Washington Gas Light Company aroused such interest when discussed at a meeting of the A. G. A. Committee on Personnel Practices in New York, Feb. 13, that it was decided to make the plan available to the gas industry.
- Prompt publication of this article was made possible by the cooperation of the committee chairman, J. D. Dingwell, Jr., assistant vice-president in the personnel department of the Washington company.

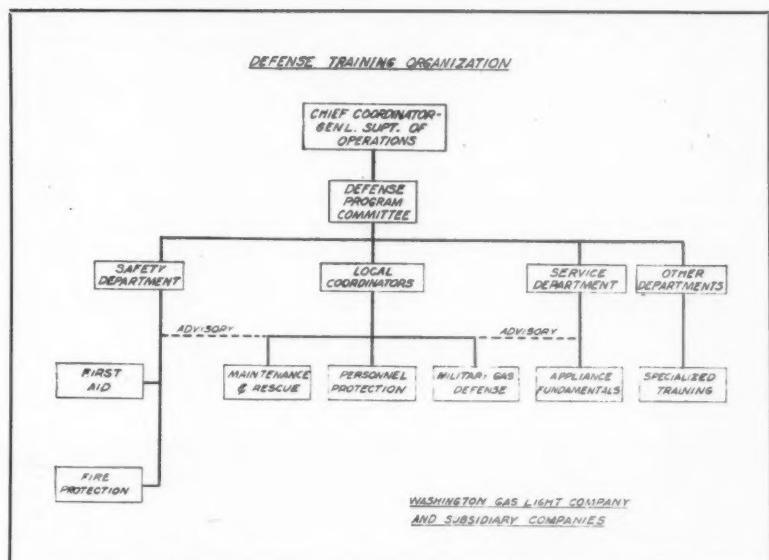
lished program for meeting adequately almost any kind of company or community catastrophe.

Greatest emphasis in the Washington program has been on personnel training. This might be justified alone by the conviction that man-power is the company's greatest wartime asset. As a practical matter, experience has shown that trained personnel is the foundation of any workable program, that organizations of the untrained can be more of a hindrance than a benefit in an emergency.

Training Program

The accompanying chart shows the extent of the training program, grouping defense activities as they have been defined for training and functional purposes—First Aid, Fire Protection, Maintenance and Rescue, Personnel Protection, Military Gas Defense, and Appliance Fundamentals. Operating units in those fields throughout the entire company will make up the Employee Defense Corps which with adequate equipment is calculated to afford as much internal protection as practicable in addition to supplementing Civilian Defense forces of the community.

Provision is being made for co-ordinating all company activities with those of civilian authorities. Headquarters of the District of Columbia O.C.D. Rescue Division, with its communication facilities, will shortly be housed on company property, as an example of cooperation. The company's vice-president and general manager, Ever-



How education of employees in defense subjects is coordinated under the plan of the Washington Gas Light Company

ett J. Boothby, is a member of the Utilities Committee of the Washington Civilian Defense organization and the Commercial Establishment Protective Committee of the Washington Board of Trade.

But our company looks foremostly to itself, its own people, to provide precautionary measures for today and remedial measures for tomorrow. Workers have pledged themselves to maintain a ceaseless vigil for signs of sabotage, to volunteer for emergency service, to take defense training courses on their own time and otherwise back the company in its war effort.

Half the available personnel have

volunteered for First Aid training in classes conducted on company premises by fellow workers after hours. One of the first training steps undertaken was to qualify 25 gas company employees as accredited American Red Cross First Aid Instructors, local and national headquarters of that agency being unable to meet the demand for teachers.

By the middle of February more than 300 employees had received standard Red Cross instruction, with several hundred others about to be qualified. The committee has set a goal of 1000 workers trained in First Aid. Many will be given the advanced First Aid Course, some the Instructor's course. A second group of instructors is already being trained.

First Aid training classes are held simultaneously in a number of improvised class rooms throughout the properties at hours best suited to the convenience of the trainees. We consider First Aid instruction to be a foundation training for any defense service; it is required, for example, of all members of the Military Gas Defense Squads.

The committee's plan provides for each Local Coordinator to have under him an appropriate number of First Aid units organized on the Red Cross Detachment basis. Directly supervising them will be a First Aid Warden and an Assistant First Aid Warden, both

The first class of Washington Gas Light Company employees to be certified as Red Cross First Aid Instructors. They are shown with Mabel Boardman of the American Red Cross who was guest at a dinner which the company tendered the group, members of which have been assigned to the training of fellow workers



of whom must have recently completed the advanced training course. Drills and inspection of equipment will keep these detachments in constant readiness.

In addition to First Aid Wardens, each Local Coordinator has on his staff a Fire Protection Warden, Maintenance and Rescue Warden, Military Gas Defense Warden and Personnel Protection Warden, with their respec-

tive assistants. Training in those subjects has proceeded concurrently with First Aid. The wardens and the assistant wardens are given intensive instruction in their respective fields; they in turn organize and instruct, with the aid of their coordinators, working squads of sufficient number at the various locations. In these groups, training goes hand-in-hand with practice drills.

One phase of our training program receiving special emphasis is that relating to fundamental gas appliance knowledge. It has always been considered desirable to have more gas company employees possess some basic knowledge of ordinary domestic gas-fired equipment. Many workers remote from service departments have asked for it. It is now considered a "must" in Washington, which has a high saturation of automatically controlled appliances. Serious disruption of service could call for hundreds of emergency workers to assist the regular service force in shutting off the house supply so main pressure could be reestablished, or in turning it on again and lighting appliances.

Our employees were told of this need and 200 of them have already volunteered for the instruction which is given in the school room of the company's service department. Meter and service connections, ranges, refrigerators and automatic water heaters are covered in the basic course which also includes instruction in turning gas furnaces off and on. Such instruction is confined to groups of not more than twenty in a class. At intervals those employees who show aptitude will be brought back for follow-up courses.

Progressing concurrently have been plans toward the development of new methods of effecting quickly emergency repairs of manufacturing plants, distribution systems, etc., and personnel will be trained shortly in the application of these specialized operations.

As far as practicable, procurement of physical protective equipment is keeping pace with training of personnel. This applies particularly to the creation of adequately supplied Fire Protection and First Aid Stations.

Trailer Houses Emergency Kitchen



Interior and exterior views of the emergency kitchen trailer



A FULLY-EQUIPPED emergency kitchen installed in a tailor-made trailer is the latest acquisition of the Elizabethtown Consolidated Gas Company, Elizabeth, N. J., and represents this company's determination to be ready for any eventuality during the war. Primarily for use in case of a disaster, the kitchen will be used whenever and wherever hot coffee and food may be needed. It will be staffed by the home service department and will be available to relief agencies in time of need.

The trailer is 12 feet long by seven feet wide. A cast iron stand 73 inches long by 20 inches wide has been installed in the rear of the trailer. This stand is equipped with three commercial burners, each of 135 cu.ft. per hour capacity and each capable of bringing five gallons of water to a boil in about 15 minutes. Each large burner has a small burner immediately adjacent which fills the function of a simmer burner. A connection leads from the manifold to

the outside of the trailer where it can be attached to the company's own gas lines. The trailer also carries an emergency supply of "bottled" gas.

Twenty-seven gallons of coffee or enough to serve about 450 persons may be brewed at one time. Other foods may be heated and cooked in proportionally large quantities.

Two 20-gallon milk cans filled with water and securely anchored and strapped into place constitute the water supply. Storage compartments with counter work tops provide adequate facilities for sandwich making, serving food, etc. There is enough space so that four persons may work with ease at the same time.

Natural Gas Aids Steel Output

STEEL men have found natural gas an ally in the recovery of iron from flue dust, a measure which helps to offset the scrap shortage now reducing steel output. Natural gas has a higher flame temperature than blast furnace gas, and by using the natural product, the Carnegie-Illinois Steel Corporation sintering plant is said to have increased its monthly capacity.

Rate Adjustments . . . A Major Utility Problem During the Emergency



Alfred I. Phillips

FEW in the gas industry need to be told that we are in a period of rising costs. The long heralded inflation is here, with the characteristic tendency for prices to spiral upward.

To be sure, the Federal Government is seeking to hold this trend in check through the control of commodity prices, but it has thus far failed to stabilize wages or the prices of agricultural products. Until this is done it will be almost impossible to exercise an effective check on the prices of raw materials or manufactured products. Therefore as prices rise labor and agriculture will demand, and probably get more; prices will again rise and inflation will continue, retarded somewhat by Federal control.

Trends Follow Last War

Price trends are following closely the pattern of those of World War I. The principal difference is that this time we have recognized them promptly, but we have nevertheless failed thus far to take the necessary steps to meet them fully. Thus there seems little reason why the price curve of the last war should not continue to be a guide to future probabilities.

Looking specifically at the gas industry, the following conditions are likely to have an important influence on operating expenses: (1) Increased prices for materials and supplies, (2) higher wage rates, (3) higher taxes, (4) decreased labor efficiency because of loss of regular employees to the military services and war industries, and the shortage of satisfactory persons to replace them, (5) greater difficulty and expense of securing ma-

By ALFRED I. PHILLIPS

and

DONALD A. HENRY

Members, A. G. A. Rate Committee

terials and the necessity of using less efficient substitutes, and (6) added expense for both material and labor to protect against sabotage and air raids.

The total effect of these factors on earnings is likely to vary considerably from place to place. In some communities where there has been a large influx of population and war industries have created a profitable industrial gas load, it is possible that there may actually be a temporary increase in earnings. In other localities with little industrial business, there may be a loss of population, a stagnant or decreasing gas load and a consequent rapid and very serious decline.

Taking all things into consideration it seems probable that most gas companies, particularly manufactured gas

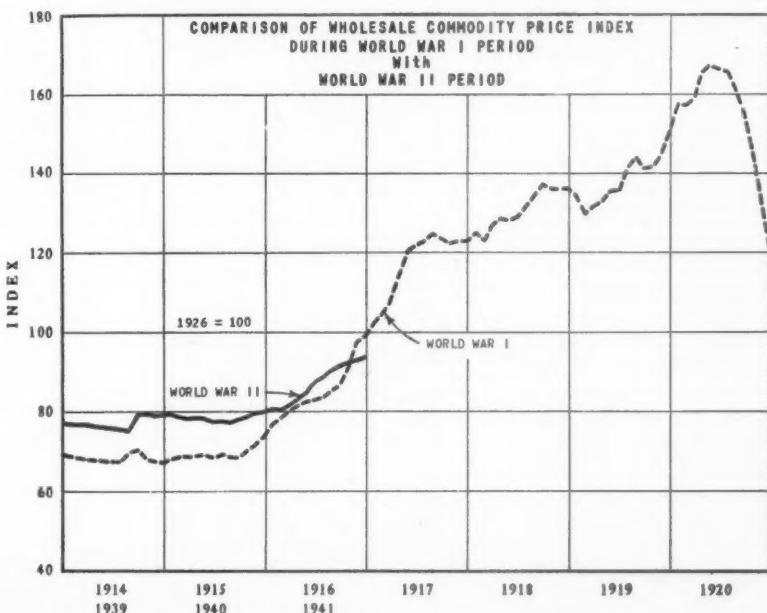
companies, will have to seek rate increases before this National Emergency is over. They had to do so during or shortly after the last war. From all present indications, conditions in this emergency are going to be even worse.



Donald A. Henry

It seems highly probable that the regulation of utility rates will remain in the hands of the state commissions. In testifying on the Price Control Bill, Leon Henderson said:

"Now as to the utilities. There is . . . an adequate set of regulations as to the charges which utility companies can make. And these again are based upon a long series of judicial determinations, of state regulations, of state laws in competent hands. . . . There are peculiar questions in utilities and none of them, so far as I



see, would give any necessity for further regulation by means of a Price Control Bill."

Three principal methods of securing rate adjustments are in common use: (1) Automatic adjustment clauses, such as fuel, oil or tax clauses, (2) informal conferences with the utilities commissions, and (3) formal rate cases.

Fuel and oil adjustment clauses have been included as a part of very many commercial and industrial and some house heating rate schedules. In their field, they are relatively simple and quite effective. However, they have seldom been applied to domestic rates, and they do not cover increased labor or tax costs, which may hereafter be of at least equal importance to changed raw material prices.

Tax clauses have been included as part of a few utility rate schedules, but have not yet found wide acceptance.

Automatic Provisions

While provisions which will automatically adjust rates are desirable and effective in their present fields, their scope is limited and commissions may consider existing conditions too uncertain to favor their extension. In but few cases would they be likely to cover all the uncertain needs of the present and probable future situation.

Those utilities which already have in effect fuel adjustment clauses for automatic regulation of rate levels may probably have adopted them in times of comparatively little stress and possibly with too little thought as to their adequacy to compensate for extreme variations in costs from the base to which they are referred. It seems that now would be a most opportune time to re-examine these provisions and their effect. Possibly they might be redesigned to follow more nearly the cost curve to rather wide limits. Also in some cases it may be found that this is a favorable time to incorporate such clauses in existing or new commercial or industrial rate schedules, even where it has been found impossible in the past.

With respect to formal rate cases, this seems no time for them. The months of preparation, lawyers, experts and expense do not fit in with the present emergency picture. Our

executives are needed to operate their companies; man power and money is needed to win the war, not to fight rate cases, and prompt action may well be imperative to maintain a gas company in sound condition to do its important share in the war effort.

Under present conditions the informal conference with the commission should be the most desirable method of securing rate adjustments, wherever possible. It may not always secure for the company the full amount to which it is entitled, but it should result in prompt and effective relief from serious inadequacy of earnings.

Case Must Be Proven

The fact that an application for rate adjustment is to be handled by informal conference rather than by formal hearing in no wise relieves a gas company from the necessity of proving its case through the presentation of all pertinent facts. The statements of these should be in writing and should be clear, concise and adequate to give an unbiased picture of the whole situation. Furthermore, they should be capable of being checked quickly on the original books and records of the company by members of the commission staff.

No two situations are likely to be identical, and the extent and character of the proof submitted will necessarily vary. Generally, however, it will include (1) proof of need for the adjustment, (2) explanation of the changed conditions, (3) comparison of existing and proposed rates and analysis of their probable effect and (4) copies of statistical data that would likely be of help to the commission.

In more detail the data submitted might include:

- (1) Annual earnings statements for at least 3 years.
- (2) Quarterly or monthly earnings statements for at least 2 years, including those for the most recent period.
- (3) Data to disclose the reason for revenue changes over a period of two years, or longer if pertinent. These should generally include average quarterly number of customers of each class, i.e. residential, house heating, commercial and industrial, together with the sales to each class in both MCF and money. Any large changes should be explained.

- (4) It will be helpful in most cases to reduce the above volume and dollar sales to a per meter per month basis.
- (5) Gas send-out, sales and unaccounted-for by months for at least the past two years.
- (6) Manufacturing material efficiencies, unit prices and costs per M for at least the past two years, with explanations of important changes. Where price changes are of material importance contracts and correspondence should be available at the conference, with copies of the most important documents for presentation to the commission.
- (7) A detailed statement of labor rate changes, showing dates and estimated effect on operating expenses.
- (8) A statement of any other important changes in operating expenses, including those necessary for protection of the plant and system.
- (9) A detailed statement of taxes over a period of several years. This should include unemployment insurance, old age benefit and social security taxes.
- (10) A summary of the operating costs at present and those at the time of the last general rate revision, with such reconciliation as may be possible with the increased costs of labor and material and of taxes as shown by items 6, 7, 8 and 9.
- (11) A statement of capital additions and retirements by years beginning at present and extending back not less than 10 years, together with estimated capital expenditures during the coming 12 months.
- (12) A statement of present and proposed rates showing a comparison of bills for each class of customer for the consumptions generally met in each class; and also a comparison of estimated earnings using (a) present sales, efficiencies and prices and present rates, (b) the same sales, efficiencies and prices but with the proposed rates and (c) sales, efficiencies and prices giving effect to any reasonably predictable changes during the coming 12 months together with the proposed rates.

The various written statements may often be clarified by presenting them also in graphic form. In fact, a chart alone will sometimes suffice and be most effective. It is important, however, to use great care in selecting the scales if they are to give a real picture of the points it is desired to bring out.

Prompt action is an important object of a rate conference with a commission. With that thought in mind

(Continued on page 120)

The Croydon Gas Company.

Katharine Street, Croydon

WALTER GROGON, HIRSON E. MINTON

MOC/CM

17th January, 1942.

Hugh H. Cuthrell, Esq.,
The Brooklyn Union Gas Company,
176, Remsen Street,
Brooklyn,
N.Y.
U.S.A.

Dear Mr. Cuthrell,

I was most interested to read in the "American Gas Association Monthly" for November that the Brooklyn Union Gas Company has formed a Defence Corps, and Mr. Paige's comments thereon.

I am wondering if perhaps a few remarks from one who has had personal experience of dealing with air raid damage might be of interest to you, and of possible assistance in the event of there being any enemy air action in your Area of Supply, which it is my sincere wish may never be the case.

At the outbreak of War we equipped ourselves with cone shaped plugs, as described by Mr. Paige, for all sizes of main up to 12", but we have seldom found it possible to use them. We have been somewhat surprised at the number of mains which have suffered bomb damage, and which have not caught on fire; but whether on fire or not there has nearly always been so much debris and "mud" over the end of the pipe that it has proved quite impossible to insert the cone stopper into the end of the main. On one occasion, when it did seem that it was going to be possible to use the cone stopper, we found that the main had fractured a few feet back from the crater, and owing to the displacement of the short broken length of pipe the cone stopper would not pass beyond the break; as gas was escaping at this break through the displaced earth, there was little useful purpose served by using the cone stopper at the crater's edge.

In practically every case where valves have not been

- 3 -
in suitable positions to isolate the bombed length of main it has been necessary to dig down, drill and bag off the main in the ordinary way.

At the outbreak of hostilities we placed valves on either side of every bridge, and since then we have undertaken a big programme of dividing all lengths of main over 12" into sections and placing valves in these mains, and in any feeders thereto, so that it is possible completely to isolate practically any section of our District.

In some cases it has been possible, and indeed almost necessary when a heavy "Blitz" was in progress, temporarily to stop the smaller sizes of mains by running clay hard round the fracture. In other cases, and these have been fairly numerous, we have found that we were able to dig the loose earth and rubble away from the end of the main where it came into the crater, and use an ordinary short double ended stopper. When doing this, however, it was nearly always necessary for the man working immediately above the man to wear a breathing apparatus, and I have no doubt that you would find one of these apparatus almost essential equipment for your emergency crews."

A difficulty which we foresaw to some extent, but not to the degree in which it did actually occur, has been the flooding of our mains whenever a bomb has dropped in the roadway; both the gas and water mains have usually been fractured and the crater has flooded and the water found its way into our Distribution System.

We have found some little 2" gasoline driven pumps capable value in clearing our mains, pumping them from the ordinary siphons, and with the assistance of these pumps no consumer has been without gas for any length of time.

I enclose a page from our Staff Magazine showing the curious effect of a bomb on a steel main; we have found of course that cast iron mains simply fracture, but in the case of a steel main there is a "squashing" effect and this effect is noticed some few feet back from the crater.

One other small point may be of interest to you and that is the enormous confidence given by wearing a steel helmet when a raid is in progress. There is little doubt these helmets do afford valuable protection against flying splinters and shrapnel from one's own A.A. gunfire, but there is also an enormous psychological effect on the wearers. It is impossible to speak too highly of the way our employees have behaved under air raid conditions and the manner in which they have tackled any sort of job asked of them.

- 3 -

17th January, 1942.

I was in America again in 1939 for six days, of which I only had two in New York. I had hoped that perhaps I might have been able to get over to Brooklyn to see you again, but time was too short. Perhaps when this war is over and I again have the opportunity of crossing the Atlantic I may have the pleasure of calling on you.

With all good wishes and the heartfelt hope that the day may not be too distant that will see our two countries victorious over our enemies,

I remain,

Yours sincerely,

Assistant to the Engineer
and General Manager.

A Curious Main Fracture.



Photo:

The above photograph shows the curious effect of a bomb on a steel main in the Company's area of supply. The main passed right through the crater caused by the bomb, but instead of disintegrating, as an iron main would probably have done, the force of the explosion caused the steel pipe to be crushed almost flat, and only a welded

joint to come apart. Due to the prompt steps taken by the Distribution Department, little interruption in the supply of gas to the consumers served by this main took place, and the fracture has now been completely repaired, and the main performing its full function.

(L. Handford)

Home Service Enlists . . . *Highlights of Community Activities to Aid War Program*

SECRETARY of the Navy Frank Knox says, "The defense effort that America is making today must not stop at the training camp or the fleet at sea. In this crisis, the battle to make America strong must be fought in our homes." With these words ringing in their ears, it is not surprising that home service directors in all parts of the country are responding to the urgent need to build up the health and morale of the nation and to prevent waste of essential food and materials. There is no more important job to be done today, and home service organizations which have been set up for just such purposes in peacetime are proving of inestimable value in wartime.

Just how the home service departments are taking the lead in community activities and nutrition education was brought out forcibly at a meeting of New England home service directors in Boston, January 30. In a round-table discussion led by Dorothy Lowney of the Taunton Gas Light Co., Taunton, Mass., chairman of the home service group of New England Gas Association, the programs of ac-

Display cards in patriotic colors similar to this one were used on the sales floor of the Gloucester Gas Lights Company to call attention to "Home Defense"

By JESSIE MCQUEEN
Home Service Counsellor,
American Gas Association

tion of ten companies were presented. The highlights of this discussion, presented below, are of interest to every home service organization in the gas industry.

The Brockton Gas Light Co., Brockton, Mass.

Mrs. Lillian Dunbar, Home Service Director

Special activities in cooperation with the Red Cross are being carried on in Brockton. With the gas company home service director acting as co-chairman with the home service director of the Edison Company, a canteen service has been set up with each having supervision over 12 stationary canteens and one or more mobile canteens. In preparation for this work menus are being printed to be used in case of disaster, which would be handled by the Brockton A.R.C. chapter (Brockton and eight other towns) so one corps could move anywhere in the chapter and carry on in another canteen without confusion.

All ordering of food is done through the chairman; in that way waste is prevented and ordering simplified. The nutrition "refresher" course is given to women home economics graduates who will direct the canteens. Most of the canteen stations are located in churches because: 1. facilities for quantity cookery are available; 2. kitchen committees are well organized; 3. refugees can be sheltered in these buildings quite easily.

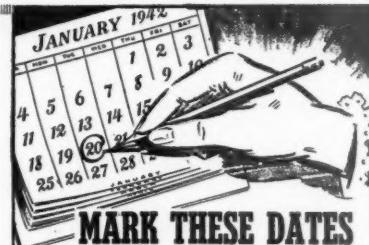
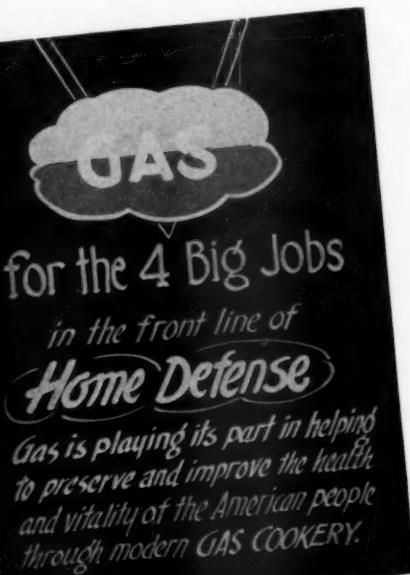
Gas equipment is to be found in all the kitchens selected and the gas company has offered to keep the appliances in service at all times, the only cost being that of replacement of parts. This offer of service has created much favorable comment in the community.

In the regular home calls in the Brockton Gas Light Company territory, the importance of home cookery is stressed and recipes featuring low cost meals without sacrificing food value are left with the customer.

Lynn Gas and Electric Co., Lynn, Mass.

Florence Mooney, Home Service Director

The company's kitchen and auditorium in both Lynn and Marblehead were offered to interested defense groups with the result



MARK THESE DATES on your new calendar

In addition to the steadily increasing importance of proper nutrition, the Providence Gas Company has planned a series of timely lectures and demonstrations on selecting and cooking foods for better nutrition.

The series will consist of eight lessons by "The Girl on White," in which she discusses the best ways of getting the most for every food dollar in health and satisfaction. These will include the newest methods of cooking all types of foods, economically and interestingly, and they will also cover complete meal planning.

At the close of each demonstration there will be an opportunity for all present to talk over food problems with our Home Service staff, or make appointments for a later discussion.

Remember the dates... every other Tuesday at 2:15 in the afternoon.

January 20th



MEAT COOKERY
How to select all kinds of meat; how to braise, broil, boil and roast to save shrinkage and nutrients; what to do with leftovers.

February 3rd



DAIRY DISHES
Using milk, cheese and eggs as dishes that are economical substitutes for meat. What these foods contribute to our well being.

February 17th



INTERESTING WAYS OF COOKING FISH
Dried, frozen, canned and fresh. The use of sauerkraut; dried peas, beans and lentils as meat substitutes and important sources of minerals.

March 3rd



ENERGY FOODS
(Starches, sugars and fats)
What is a calorie? Latteau foods cooked in deep fat; cereals used in main dishes, breads and desserts.

March 17th



CHOOSING DESSERTS
For their nutritive contribution to the meal as a whole. Inexpensive cakes, pies, cookies and puddings.

March 31st



FRUITS AND VEGETABLES
The protective foods. How to select and care for them, how to prepare them in dishes in ways that will preserve their minerals and vitamins.

April 14th



MEAL PLANNING
To ensure wise buying and wise eating. Refitting the menu to fit away from home to the rest of the day's intake. Oven meals and top-burner meals; simple garnishes.

April 28th



MORE MEAL PLANNING
How to elaborate simple meals. Good carried lunches for children, office workers and outdoor or hard working. Planning menus to meet caloric needs. Broiled meals, luncheon dishes.

Home Service Lecture Room
FIFTH FLOOR — GAS COMPANY BUILDING
at 2:15 in the afternoon

PROVIDENCE GAS COMPANY
100 WEYSBURY STREET

Newspaper advertisement of the Providence company announcing food lectures and cooking demonstrations by the home service "girl in white"

that the following diversified activities took place or are planned: a canteen school is given one morning and one evening a week by the director of Women's Civilian Defense; a Red Cross canteen group meets another morning; air raid wardens use one

of the rooms for instruction; other groups have petitioned for space as soon as current individual cookery classes are completed.

The home service director has been asked to conduct canteen courses by both the Lynn and Marblehead chapters of the Red Cross. The former is planning to use the Marblehead home service kitchen as a base kitchen in time of emergency.

Arlington Gas Light Co., Arlington, Mass.

Mrs. Hazel Cheever, Home Service Director

This company began nutrition work with a "refresher" course taken by the director during the month of July who then set up her continuing courses, particularly scout classes, geared to new nutrition information. Good printed material available from the State Department of Health and the Federal bureaus was utilized as much as possible.

The auditorium in the Arlington office is being used every morning for Red Cross nutrition classes and also for graduation exercises in Civilian Defense groups. Low cost meal demonstrations have been given by the home service director for the benefit of these groups.

Gloucester Gas Light Co., Gloucester, Mass.

Charlotte Semple, Home Service Director

Display cards set on tables throughout the sales floor of this company call attention to recipes and special assistance from the home service department. One card reads "Ask for Recipes of Low Cost Foods" and another "Home Service Aids Home Defense." The home service director, Miss Semple, has volunteered on her own time to teach nutrition classes and do canteen work for the Red Cross several evenings a week.

Boston Consolidated Gas Co., Boston, Mass.

Susan Mack, Home Service Director

An important part of this company's work is the organization and conduct of a canteen course for gas company employees which is described in a separate article in this issue of the MONTHLY.

Another effective program involves the large newspaper cooking schools which will now be called Victory Schools. Large food charts are used to assist in the explanation of nutrition. Information is patterned after the New York City nutrition program entitled "Food Joins the Colors." A test chart is given to those in attendance. "Share Strips" of food composition as it relates to nutrients are similar to those used by the Massachusetts Extension Service and are set up for different cost levels. It is possible to show that costs can be cut down by using less expensive foods high in certain nutrients.

One of the girls at the cooking demonstration wears a red dress and another a blue dress and with a white demonstration table they complete a patriotic color scheme.

Fall River Gas Works Co., Fall River, Mass.

Pauline Graves, Home Service Director

A new All-American kitchen featuring a red, white, and blue color combination has been set up on the sales floor of this company. Weekly classes featuring "foods for defense" are being held and the kitchen has been selected by the local Red Cross as a meeting place for all future nutrition and canteen courses. Mrs. Graves, as a certified instructor, is starting a course for mobile canteen workers and other courses are already planned; one a canteen course for company employees which will be started shortly so that in emergencies the company canteen service will take care of its own employees who may be called on for emergency duties.

At Sunset Hill, a local housing project using gas for cooking, refrigeration and water heating, a series of three evening demonstrations will be held. The series entitled "Vitamins for Victory" will feature menus and recipes selected by the tenants themselves as being within their budget requirements and will be arranged under

(Continued on next page)



Front cover of four-page folder, printed in attractive colors, inviting the public to visit the new Free Kitchen Clinic of the Fall River Gas Company. Illustrated recipes were printed on the inside pages

Emergency Canteen Unit Organized

WHAT is believed to be the first teen unit to be organized among the women of any American utility company has been trained by the Home Service Division of the Boston Consolidated Gas Company, under the direction of Susan Mack.

The group will function in case of emergency as an auxiliary force to supplement the regular Home Service staff of workers.



Lieutenant Alice Turner, of the Boston Consolidated Gas Company's home economics staff, who acted as instructor in the company's canteen course

Their duties will be the preparation and serving of food to company men who may be required to remain at their posts of duty for long hours.

Classes were conducted in two groups, one on Monday and the other on Wednesday evening. Ten hours of instruction were necessary to complete the course. A rigid examination was required on all work given in the classes.

Instructor for the group was Lieutenant Alice Turner, selected because she had satisfactorily completed the canteen course given by the Mobile Canteen Unit of the Massachusetts Women in Defense, and had received her lieutenant's rating.

Lieutenant Turner began her classes with a two-hour lecture designed to acquaint those taking the course with various types of bombs, gases, the proper equipment for an air raid shelter and other pertinent information which may be invaluable in case of disaster. Four additional class periods covered foods—their vitamin value, ordering, storage, preparation and serving.

Each member of the class was assigned her particular duty to carry out; some made sandwiches, others coffee, stews, soups. Some were responsible for care of the food after cooking, others for food distribution to designated groups, such as building cleaners; one group for "kitchen police," including washing of dishes and seeing that the kitchens were left in tip-top order.

At the end of the course, forty-five volunteers had been made efficient and capable enough to assist the company's Home Service staff in coping with whatever food emergency that might be caused as a result of disaster to the company's service.

the three headings, Balanced Meals, Balanced Menus, Balanced Budgets.

In March a "free kitchen clinic" will be announced through a broadside entitled "Defense for Your Food Budget and Family Health." This broadside prepared in cooperation with the Glenwood Range Company will be distributed to all customers and will include a picture of the new All-American kitchen and a series of six recipe cards all in the standard 3" x 5" size which is being featured in the weekly recipes distributed by the company.

During the "free kitchen clinic" special demonstrations will be held and customers will be given access to the recipe files of the gas company.

Worcester Gas Light Co., Worcester, Mass.

Mrs. Lyda Flanders, Home Service Director

The first Red Cross nutrition class in Worcester was started by the company's Home Service Department at the request of the Red Cross chapter. After becoming certified Red Cross nutritionists, the ten nutrition lectures that precede the canteen classes were divided among home economists in Worcester. Three members of the Home Service Department assisted Mrs. Flanders in giving the lectures on general nutrition, protein, minerals and vitamins. Work on low cost diets was given by the nutritionists of the Worcester Welfare Department.

The planning of special diets was presented by the dietitians of two Worcester hospitals and Mrs. Flanders returned to give the final examination. The first series of classes had an enrollment of about two hundred, composed mostly of lay people, homemakers from moderate and well-to-do homes untrained in nutrition, with a few trained home economists. An evening class under the direction of Barbara Farnsworth, one of Mrs. Flanders assistants, was started a short time ago with an enrollment of about one hundred interested business women.

In addition to Red Cross work, at the extension service nutrition "refresher" course, a demonstration by the gas company was presented on cooking methods which best preserve vital nutrients. At this demonstration such elementary but extremely important work as baking whole wheat bread, broiling beef liver and top stove vegetable cookery was given.

This year the community cooking classes of the Home Service Department are planned to fall in line with the program of the National Defense Committee on Nutrition. The titles of the classes are:

1. "Stretching the Food Dollar."
2. "Cooking To Save Those Vitamins and Minerals."
3. "Stars from a Week of Balanced Menus."

An important feature of each class is the printed material given, apropos the subject matter, that augments the work given in class and that would be of great help to the homemaker in her food preparation to "stretch the food dollar, save vitamins and minerals and in planning menus."

The Hartford Gas Co., Hartford, Conn.

Mrs. Arra Mixer, Home Service Director

This company has always carried on a cooperative program with the local home economics association in Hartford and the State Home Economics Association. Mrs. Mixer is chairman this year of the Homemakers and Adult Interest Committee. The gas company has a large auditorium and is well equipped for demonstration purposes. Its hospitality to extend this service to many groups throughout Hartford has made it a general meeting place. Through the State Department of Health, the nutritionist has made available food habit charts which are used by groups meeting in the auditorium, including company employees.

The home service department is cooperating with the Nutritionist in the State Department of Health in planning a large window display, which will be built around the slogan "Nutrition Is Vital to Defense." The window will be seen by thousands of passers-by and will tell the story in a simple but convincing manner.

During December the company's large outdoor advertising board was dedicated to the Red Cross. It carried a striking message and members of the Red Cross Committee said it definitely aided in their drive. The same board now carries the caption "Our Shoulder Is to the Wheel—Gas for Defense."

In low income groups more and more requests are coming in from women's groups.

In high schools and junior high schools, Home Service is giving on request, classes such as "Thrifty Meat Cookery." In one class 150 boys and girls had to crowd into all available space, desks, counters and vacant stoves.

The auditorium will be used by the employees in the event of an air raid. The windows are blackened and also some of the lights. There is also an emergency shelf for use in employee feeding in case of necessity.

The Bridgeport Gas Light Co., Bridgeport, Conn.

Betty Stafford, Home Service Director

In the home service department adjoining the sales floor of the gas company, the Defense Council of Bridgeport, has set up a Nutrition Clinic. In this clinic, homemakers are invited to bring in their questions on menus and food preparation, and home service girls in charge work out solutions with them.

The Defense Council also has set up a program in the Public Library and has requested talks by home service and company officials, discussing the care and use of gas equipment. Dr. Joseph Howard, head of the Defense Council, has asked the gas company to sponsor a talk over two radio stations on the subject of "Good Health from Good Nutrition."

A short course in canteen work based somewhat on Red Cross technique but for special use in the emergency, is being offered by the gas company to those people who have had some training in quantity

cookery. An unusual bit of cooperation was extended by the management of two hotels who have offered to supply these canteen courses with food enough to serve 150 people on the condition that the food must be prepared, cooked and made available to them when they need it at the hotels.

A survey is being set up to cover those sections of the city where a low gas load is reported, to find out about complaints, inquire about past service and leave recipes on oven meals, top stove meals and colored charts on good nutrition. At this time the women called upon will be invited to a neighborhood cooking school and a callback will be made to see if all points have been fully explained.

Providence Gas Co., Providence, R. I.

Kathleen Atkinson, Home Service Director

The gas company's auditorium has been offered to community groups and is now in such demand that it is a problem to figure out when the company can use it for its own activities.

Of particular interest in connection with the national nutrition program is an advertising campaign now in progress. Newspaper advertisements outline in detail an eight-lesson course being offered by the company while street car advertisements request the readers to "Consult the Girl in White" for special menus and other information. The "Girl in White" is any member of the home service department and a desk on the sales floor is reserved for her where she offers the services announced in the company advertising—special low cost menus and nutrition information. Three columns in the local newspaper each week carry material based on nutritious food ideas.

Summary

It can be readily seen from the brief outlines above that home service departments in New England as elsewhere are giving wholehearted support to the country's war effort and are in a position to render outstanding service. In this respect, J. J. Quinn, sales manager of the Boston Consolidated Gas Company, speaking at the same conference, stated that company managements depend more than ever before on home service organizations to extend complete cooperation in all community programs and to help homemakers during this difficult period. He emphasized that it was important that management be kept fully informed of what can be done so that complete support and cooperation will be forthcoming.

Kansas Natural Gas Production Up

ACCORDING to figures released by the Kansas State Corporation Commission, the production of natural gas in Kansas reached an all-time high in 1941. Production for that year totalled 93,426,773 M. cu.ft., representing an increase over 1940, which was also a record year, of 7,808,988 M. cu.ft.

My Plan for Gas . . . To Increase Public Acceptance of the Ideal Fuel

PART III SPECIFIC MEASURES



Robert H. Lewis
G RANTING that "acceptance" is the end result of: (a) having something worthwhile, (b) selling it, and (c) keeping it sold, approach to the goal may be hastened by a certain amount of

direct appeal for public favor. The following proposals contemplate the latter.

Here as elsewhere care must be taken to avoid asking something for nothing. There should be an element of mutuality in such gestures: the company gives tangible expression of its good will toward the public, with reasonable inducement for its return in kind.

1. Gaining Public Confidence

Usually the gas company is taken for granted; most people are apathetic toward it unless a current rate case or other temporary issue is being aired. This alone calls for a plan of action to stir the public consciousness, because we may be sure that it is not taken for granted as a dynamic progressive institution, offering an indispensable service to every home—but as something time-worn, something that could easily be pushed aside by a younger and abler successor.

In some cases however there is assumed toward the gas company a defensive attitude, often bordering on hostility. It is found that this is not so much a carry-over from the legendary "dark ages" of the utility industry, as from deliberately antagonistic influences of today. Those responsible are not often the officially constituted regu-

- This is the concluding part of a paper by Robert H. Lewis which won first prize of \$150.00 in the prize paper contest conducted by the Committee on Personnel Practices. The award was presented at the Association's Annual Meeting in Atlantic City last October.
- In the first installment, published in January, Mr. Lewis presented a survey of a hypothetical company. In the last issue he described a plan of action designed to improve that company's competitive position.
- It should be remembered that this article was written prior to our entry into the war and subsequent dislocation of sales promotion activities.

By ROBERT H. LEWIS

*Washington Gas Light Company
Washington, D. C.*

latory agencies, but usually such self-appointed watch dogs of the common welfare as Chambers of Commerce, Consumers' organizations, neighborhood Citizens' organizations, crusading newspapers and political demagogues.

Popular misconceptions as well as passive indifference can be effectively combated by a well planned educational procedure. This might include the use of forceful announcements in paid newspaper space and a sequence of radio features, supplemented by hand-out and mail-out printed material. Circumstances would naturally dictate the extent and nature of such methods, but few if any companies can afford to assume that there is no need for any institutional effort.

Themes upon which such a public information campaign as recommended can be based include the following:

Topic A—In times past, gas was the only domestic fuel from a centrally controlled source. In those days not only was gas service a monopoly, but with it went a virtual monopoly on the most vital facilities of the home. Today gas

again holds a monopoly in the community as the *preferred* domestic fuel, not because there is no substitute for gas, but because there is no substitute for the kind of service gas renders on the four big jobs of modern cooking, water heating, house heating, and refrigerating.

Topic B—The supremacy of gas is questioned from time to time by backers of other fuels. This is one incentive for the gas company to strive constantly for ever higher degrees of excellence in its service to consumers. Today, when alleged competition is more active than ever before, gas is overwhelmingly the people's choice. The consumer gets far more for his gas-dollar today than ever in the history of the industry.

Topic C—The gas company courts lower rates. It is good business to reduce the cost of gas service to the consumer; it means more customers, greater user satisfaction and more appliances in operation. The company is always willing to defer to a fair minded Utilities Commission in the matter of rates, but often takes the initiative in proposing reductions for the reasons stated. Similarly, the company welcomes lower gas bills for a given job, and continuous study is being given to means whereby the customer can conserve the fuel he prefers.

These and other general subjects relating to the modern conception of the company, the fuel and the service, could be developed in a manner certain to have a favorable effect on Public Acceptance.

2. Press Relations

Dealt with above are publicity opportunities which can be deliberately created. Often *ready made* opportunities arise which if capitalized would likewise yield the right kind of publicity. This is particularly true during the period of national defense preparation when all basic community services are in the spotlight.

By recognizing existing publicity opportunities a company can often prevent the printing of information in the form of an undesirable news item. This is because there is more than one

way of telling a story, of handling news copy material. A typical case is discussed below:

At the completion of a successful operating period a gas company submits its report to the Utilities Commission. A story reaches the newspaper through an officer of the commission who might have embellished it with his own interpretation or given a bare financial summary to the reporter. In any case the story appears in the financial column headlined—"Gas Company Shows Big Gains in Net Profits." The supporting story intimates that the company has been further gouging the unsuspecting consumer.

This is excellent raw material for an adverse editorial and a rate crusade. It is the type of publicity which might conceivably attract investors but not gas consumers, would not in any degree improve Public Acceptance. There is no reason why the story should not have originated in a release controlled by the gas company. In that case a Public Acceptance "angle" would likely be found and, one way or another, given prominence. A company officer's comment on the increased net could be quoted; reference could be made to the cause—operating economies, accelerated public demand, growth of the community; it might be "viewed by the company" as a possible basis for an early rate revision.

Once more we cannot expect something for nothing—publicity should earn its way into print by being the kind of material the paper wants to use and the public wants to read. Newspaper executives, city editors, editorial writers and reporters, should be cultivated but never patronized—they have a sixth sense for insincerity. It is often desirable to take a newspaper man into one's complete confidence—they seldom violate a trust.

If practicable, the trained news point-of-view should be represented by someone on the gas company staff through whom all matters of publicity could pass.

3. Poll of Public Opinion

Capitalizing the current popular straw vote on national issues, a local monthly consumers' poll on various phases of the gas company program would produce interesting and profitable results.

The general announcement of such a project would provide the basis for compelling institutional advertisements, introducing the theme: "It is *your* Gas company—this is an opportunity for *you* to have something to say about it."

As each question of the month is submitted, a new occasion is presented for convincing messages concerning the particular service or appliance involved—ostensibly as a means of offering background information for the benefit of those participating in the poll. (An appliance selling tie-up could be effected by directing the interested consumer to company or dealer show rooms for additional information.)

Mechanics of the poll could be simplified by the use of bill enclosures or attached coupons for the "ballot" form. Postage collect business reply cards would serve, but it would be advantageous to have customers visit the show rooms where convenient drop-boxes could be located.

Where conditions of public sentiment seem to require it, this device could be sparingly used as a sort of open-forum on some general question relating to the utility company's position in the community. This would give malcontents and others a chance to unburden themselves, being literally a matter of asking the people how the gas company could better serve them. It would be extremely difficult to avoid the defensive in so doing; yet, with the proper exercise of disarming frankness, such a plan might produce good results without loss of prestige or dignity.

A safer application is the more positive, more constructive one, patterned after the successful radio-heralded contests whose rallying cry is: "I like Product-A because. . . ." This is a time-tested method of getting consumers to expose themselves voluntarily to a barrage of selling missiles. In the gas company event, there would be nothing to buy, no box tops to send in—the entrants would not even have to be a gas consumer as additional ballot forms would be available at the company office. "No postage, no red tape; just finish this sentence (for example) in 50 words or less: 'I vote for CP Modern Gas Ranges because. . . . , and leave your ballot at the gas company office."

It is not recommended that the voter be required to indicate on his ballot the kind or condition of appliance he now owns. While that would produce leads, it would cheapen the contest and cause returns to diminish. The same purpose could be served by stationing an attendant at the drop box who

could casually make such inquiry. Cook books, seasonal recipes and like items could be offered as an inducement for "voters" to respond in person.

Of course a prize would be offered monthly for the most suitable reply, the appliance concerned in the month's question being the most appropriate.

It is recommended that the first month's contest be devoted to the CP range, and that this be followed in succeeding months by similar treatment of the other three appliances. If results justify it, the series can be expanded into an entire year's campaign by dealing, in subsequent contests, with the various cooking operations of the CP range and major features of the other appliances.

4. Demonstration Center

Efforts in the new construction market suffer when there is no model house—accessible at all times and under gas company control—for showing modern appliances to the very best advantage, in their ultimate home setting. For those progressive companies so situated as to embrace the opportunities offered by the new year-round air conditioning unit, there is more incentive than ever for an all-gas display and demonstration home of their own.

It is proposed as a Public Acceptance measure that there be established at a suitable location—preferably adjacent to an important outlying shopping section—a special type of model dwelling that will serve the above purpose, in addition to performing such other important functions as that of a home service exhibition station. In the replacement range field as well as in the new construction market, electric competition is making inroads through the medium of a continuous series of visual cooking demonstrations before small groups of range prospects; this can be met by adoption of like tactics. It is possible to so design a sizable model home as to provide ample space for informal practical demonstrations. Depending on available floor area, these could be conducted in an adapted section of the basement, or in a suitably arranged kitchen if adjoining rooms are situated to accommodate the spectators. In the latter case, a portion of the basement could be utilized for dis-

playing additional kitchen equipment.

It is difficult to over-state the sales importance of a visual cooking demonstration with its appeal to the prospect through all of her senses. Daily classes could always be supported by prospective buyers brought or sent by retail salesmen and new construction contact men, and by others especially invited. The effectiveness of such demonstrations could be extended through the use of radio time.

Again depending on available space, the demonstration center might be used for the convenient payment of bills and other customer contact purposes—in a limited sense it could serve as a district commercial office. If skillfully and artistically planned, the model home could be adapted to a variety of functions without violating the basic architectural integrity of a well-designed home, saleable as such should future conditions dictate its abandonment. The cost of this venture could be justified not only as a specific Public Acceptance medium, but also as a direct source of new business.

5. Streamlining Customer Relations

Surface appearances are important in creating the impression of progressiveness. Such an impression can be sustained however only by backing appearance with performance. A modernized office front with interior appointments in keeping, streamlined service trucks, snappy uniforms for meter readers—these are part of keeping in step with the time, but they are sure to be recognized, by a discerning public to whom such things have now become commonplace as superficial items.

On the other hand if certain valuable services are improved, accelerated, "streamlined," enduring customer satisfaction is sure to result. This is particularly desirable from a Public Acceptance standpoint in those services which involve personal contact with the customer. Often the good will of a consumer built over a period of years is cancelled by a seizure of annoyance resulting from a single incident wherein he communicates in person with a company representative. Careful selection, training and supervision of commercial office employees often precludes such consequences in

face-to-face interviews. A more vulnerable spot is the telephone interview. For the vast majority of customers, communication with the company is restricted to telephone conversations—except for routine payment of bills.

Under the usual system, the customer first states his business to the switchboard operator, who endeavors to route the call to the proper department. In some instances, due often to misunderstanding, the customer's call goes to the wrong department thereby necessitating another transfer. In another case, it may be necessary to call more than one department, which requires additional transfers—and the customer has to tell his story several times. With such weakness existing in this vital part of the service program, the good effect created by a job well done might be entirely erased.

Why not have that contact one that will yield the desired results quickly, courteously and intelligently, leaving with the customer the memory of a wholly satisfying experience? Why not bypass all calls for service or information to one place, where one voice will

speak with authority and understanding; where one individual will receive and finally dispose of the call without delays, transfers, call backs, confusion and annoyances? Why not have the owner of that one voice at the receiving end of the line equipped to take all kinds of orders and provide all general information? Why not have it possible, when contact with accounting, service and other departments is required, to immediately signal someone there and have them come in on the call—promptly, helpfully, and unobtrusively assisting in its completion?

All of this is actually being done in certain large cities through the installation of a telephone order turret and the creation of a centralized telephone service bureau to which all general incoming calls are automatically routed. It is the writer's conviction that these recommendations for increased Public Acceptance, which are addressed to the entire industry as a whole, would be seriously lacking if they did not include a plea for a far wider adoption of this practice.

Gas Industry Launches New Program of National Advertising



T. J. Strickler

NOW that our country is at war, the A. G. A. Committee on National Advertising has decided that an immediate change in advertising policy is imperative, T. J. Strickler, of Kansas City, chairman of the committee, announced on Feb. 3. Accordingly, all future insertions of 1942 advertisements scheduled for national consumer magazines have been postponed. A new copy platform, together with key copy and layouts, is now being prepared as the spearhead of an entirely new program to be developed in conformance with the country's war effort.

Specifically, the new consumer advertising will inaugurate:

1. An intelligent, far-sighted and completely unselfish program planned to help the consumer feed her family better during

this war-time emergency; and to promote such other Government-sponsored war activities as the committee, in its judgment, believes the gas industry is singularly fitted to perform in order to render an outstanding public service.

2. The basic character of the program for the immediate future will be devoted to maintaining a high standard of national health, with emphasis on nutrition, balanced diets and low-cost recipes, all tied in with the Government's own effort.

"No industry is in a more logical and advantageous position to make the furtherance of this program its own than is the gas industry," Mr. Strickler said. "Eighty-five million Americans eat gas-cooked meals. This makes the gas industry perhaps the greatest single common denominator in the whole field of nutrition."

"This new program provides a matchless opportunity for the gas industry to step to the front as an authority in nutrition and food preparation to an extent which it has never done before. Such a program will help the nation. It will help the Government. And it will preserve and build for us a maximum of good-will."

Vital Program Mapped for Natural Gas Convention and Distribution Conference at New Orleans



J. French Robinson



Burt R. Bay



C. S. Goldsmith



D. W. Reeves

WHEN the Spring Executive Conference, the 37th Annual Natural Gas Convention and the 19th Annual Distribution Conference of the American Gas Association meet in New Orleans from May 4-7, inclusive, it will mean that the entire gas industry is being ably represented at a series of meetings which are expected to chart a sound and progressive emergency program for the natural and manufactured gas industries. One of the largest groups of gas executives and employees to assemble during the war period is expected to take part.

In spite of heavy war activities, executives and operating men are concentrating their attention on these programs which will be helpful in plotting a course through the present maze of uncertainties. There is no uncertainty, however, in the fact that the industry recognizes the great and immediate need today for strong cooperative effort.

The following executives are at work now in the preparation of an outstanding 1942 meeting:

J. French Robinson, chairman, Natural Gas Section, American Gas Association; president, The East Ohio Gas Company, Cleveland.

H. Carl Wolf, chairman, Spring Executive Conference; president, Atlanta Gas Light Co., Atlanta, Ga.

B. R. Bay, chairman, General Program Committee, Natural Gas Section; president, Northern Natural Gas Co., Omaha, Neb.

C. S. Goldsmith, chairman, Distribution Committee, Technical Section; engineer of distribution, The Brooklyn Union Gas Co., Brooklyn, N. Y.

C. U. Daniels, chairman, Natural Gas Production Committee; vice-president, Oklahoma Natural Gas Co., Tulsa.

B. M. Laulhere, chairman, Natural Gas Transmission Committee; technical supervisor, Southern California Gas Co., Los Angeles.

D. W. Reeves, chairman, Industrial & Com-

mercial Natural Gas Sales Committee; industrial sales manager, Oklahoma Natural Gas Co., Tulsa.

C. B. Wilson, chairman, Residential Natural Gas Sales Committee; new business manager, Arkansas Louisiana Gas Co., Little Rock.

There will be a joint session of the Natural Gas Convention and Distribution Conference on Tuesday morning, May 5, in the Roosevelt Hotel at which time both the chairman of the Distribution Committee, Mr. Goldsmith, and the chairman of the Natural Gas Section, Mr. Robinson, will speak.

George S. Hawley, president of the American Gas Association and of the Bridgeport Gas Light Company, Bridgeport, Conn., will be one of the principal speakers at the Gas Industry Dinner on Wednesday evening, May 6. His subject will be announced at a later date.

"Marketing Problems Under War Conditions" will be discussed by H. V. Coes of Ford, Bacon & Davis, Inc., New York, at the second General Session on Wednesday, May 6. These general sessions will include authoritative speakers on the relation of the natural gas industry to trends in the banking and economic fields.

To Tackle Operating Problems

The Production and Transmission Conferences have been planned from the viewpoint that technical and operating problems of the natural gas industry are ever-present in war or in peace. On the Transmission Conference, for instance, "Cathodic Protection," "Main Line Automatic Shut-Off Valves" and a movie on a "New Acetylene Welding Process" will be topics of interest.

The two sessions of the Production Conference will be devoted to symposiums; the first on "Drilling and Completion in High Pressure Areas"; the second, on "Proper Production Methods." Each paper will be concise and timed to allow full discussion. Represented on these programs will be men

from producing areas in Oklahoma, Louisiana, Ohio, Texas, Pennsylvania and California.

The Industrial and Commercial Gas sessions have a place of unusual importance in the 1942 program because gas is playing a four-star role in the American industrial picture today. Subjects for discussion indicate that industrial gas men are fully aware of the effort the industry must exert to aid gigantic war effort. Subjects include:

The Engineer's Place in the War Effort
Natural Gas as a Vital Factor in Production of War Materials

Forum on Maintenance of Industrial and Commercial Equipment Under Wartime Conditions

Gas Boiler Trends in War Establishments

A Discussion of Industrial Gas Controls Being Installed in War Plants

Problems in Providing Gas Service to War Establishments

A Day with Natural Gas in an Army Camp

At the Residential Gas Sales Conference, C. B. Wilson will act as questioner in a panel discussion on "Today's Sales Developments." Six or seven natural gas executives, representing many sections of the country, will reply to Mr. Wilson's questions. W. E. Derwent, president, Association of Gas Appliance & Equipment Manufacturers, will speak on "The Outlook for Gas Appliances." "Maintaining Customer Satisfaction During the Emergency" is another vital sales conference topic.

The Home Service program, a perennial favorite at natural gas conventions, will this year take its place in the spotlight as a most important factor in the war activity. It will stress the tie-up with the Natural Nutrition Program.

Because of the serious times, planned social functions have been reduced. The principal event will be the Gas Industry Dinner May 6 in the Grand Ball Room of the Roosevelt Hotel. A man of national reputation will speak at this gathering and it is planned also to have attractive entertainment features.

Natural Gas Bill Signed

LEGISLATION broadening the Federal Power Commission's authority over expansion of natural gas facilities was signed by President Roosevelt on Feb. 9. The measure requires that an F. P. C. certificate of necessity and convenience be obtained to engage in the transportation or sale of natural gas or the extension or acquisition of facilities. Prior law required such certificates only for new construction or extension of facilities to a market already served by another company.

Personal AND OTHERWISE

Fletcher Heads A. G. A. Domestic Research



R. L. Fletcher

R. L. FLETCHER, vice-president, Providence Gas Company, Providence, R. I., has been appointed chairman of the Committee on Domestic Gas Research by George S. Hawley, president of the American Gas Association.

Mr. Fletcher succeeds F. J. Rutledge as chairman of this

committee after having served as a committee member for several years. He is a director of the American Gas Association, a past president of the New England Gas Association, past president of the Guild of Gas Managers, member of the Society of Gas Lighting, member of the Eastern States Blast Furnace and Coke Association, American Society of Mechanical Engineers, and the Providence Engineering Society.

The following have been appointed to serve with Mr. Fletcher on the committee: Frank H. Adams, Surface Combustion Div., General Properties Co., Inc., Toledo; F. M. Banks, Southern California Gas Co., Los Angeles; R. G. Barnett, Portland Gas & Coke Co., Portland; E. J. Boothby, Washington Gas Light Co., Washington; H. H. Cuthrell, The Brooklyn Union Gas Co., Brooklyn; Henry O. Loebell, New York; Christy Payne, Jr., The Peoples Natural Gas Co., Pittsburgh; H. P. J. Steinmetz, Public Service Electric & Gas Co., Newark; Charles H. Wiley, The Lacledo Gas Light Co., St. Louis; and W. F. Wright, The Dallas Gas Co., Dallas.

Rutledge Honored for Research Work

A RESOLUTION expressing the thanks of the gas industry to F. J. Rutledge for his constructive leadership and lasting contributions as chairman of the Committee on Industrial Gas Research for 15 years and as chairman of the Committee on Domestic Gas Research for 6 years, the full lifetime of these committees, was passed unanimously at a meeting of the A. G. A. Executive Board in New York,

January 28. Mr. Rutledge retired from active service on Dec. 31.

The resolution said in part: "He has given freely of his time and effort and from his great background of experience. The American Gas Association owes him a debt of gratitude for the outstanding achievements and definite accomplishments that these committees have made."

Fisher Heads A. G. A. Meeting Group



R. E. Fisher

R. E. FISHER, vice-president of the Pacific Gas and Electric Co., San Francisco, Calif., has been appointed chairman of the Arrangements Committee for the annual meeting of the American Gas Association which opens Sept. 29 in that Pacific Coast city. The appointment was made by President George S. Hawley who stated that the complete personnel of the committee will be announced shortly.

Farmer Named Head of Utilization Bureau



D. E. Farmer

ADVANCEMENT of D. E. Farmer, a 22-year veteran of the company, to superintendent of the utilization bureau of Portland Gas & Coke Company (Portland, Oregon) was announced January 26 by R. G. Barnett, vice-president and general manager. He succeeds C. R. Miller, 35-year veteran of the company and superintendent of the bureau for 25 years, who died January 19.

After four years' service with the Canadian army, including three years overseas with a machine gun unit, Mr. Farmer joined Portland Gas & Coke Company as a clerk in the utilization bureau and advanced steadily thereafter. At one time he

worked with Raymond M. Conner, now head of the testing laboratories of the American Gas Association, who then had charge of Portland Gas & Coke Company's advanced testing program.

He served one term as chairman of the meters' committee of the Pacific Coast Gas Association and as a member of the committee for several years.

Succeeding Mr. Farmer as chief clerk is Fred J. Harkins, an 18-year veteran of the gas company, who joined the utilization bureau January 30, 1924.

New Industrial Research Committee Chairman



John W. Batten

GEORGE S. HAWLEY, president of the American Gas Association, has announced the appointment of John W. Batten as chairman of the Committee on Industrial Gas Research. Mr. Batten succeeds F. J. Rutledge, chairman of the committee since its organization.

Mr. Batten, who served as a member of the committee under Mr. Rutledge, is vice-president and general manager of Michigan Consolidated Gas Company in Detroit. He is a member of the Executive Board of the American Gas Association and is a past president of the Michigan Gas Association.

Other members of the Committee on Industrial Gas Research are: Charles R. Bellamy, Columbia Gas & Electric Corp., New York; Charles C. Krausse, Consolidated Gas Electric Light & Power Co. of Baltimore; J. P. Leinroth, Public Service Electric & Gas Co., Newark; R. D. Maxson, Public Service Co. of Northern Illinois, Chicago; George F. B. Owens, The Brooklyn Union Gas Co., Brooklyn; George M. Parker, Mississippi River Fuel Corp., St. Louis; Eugene J. Stern, Atlanta Gas Light Co., Atlanta; and Elmer F. Schmidt, Lone Star Gas Co., Dallas.

Devlin Heads A. S. M. E. Gas Committee

EDWARD J. DEVLIN, Research Engineer for The Brooklyn Union Gas Company, has been appointed chairman of the Manufactured Gas Committee of the Process Industries Division of the American Society of Mechanical Engineers. The committee plans to arrange for the presentation before the A.S.M.E. of papers dealing with technical and engineering aspects of the gas industry which are of general interest for engineers.

Mr. Devlin is a member of the A. G. A. Committee on Market and Economic Research and author of the article "Know Your Market," which appeared in the February issue of the A. G. A. MONTHLY.

Veteran Portland Gas Man Dies



C. R. Miller

C. R. MILLER, veteran of Portland Gas & Coke Company (Portland, Oregon) for 36 years and for 25 years superintendent of its utilization bureau, died January 19 after a long illness.

Active for almost a quarter of a century as a member of the Pacific Coast

Gas Association, he was a featured speaker at conferences and a contributor of many outstanding reports. For more than 20 years he wrote articles for gas magazines on various phases of the industry.

The gold medal honor award of the Pacific Coast Gas Association was given him in 1925 for his "Gas Appliance Installation and Service Manual," a comprehensive study which won wide praise in the gas industry. In the same year he won the Association's gold medal award for work as chairman of the home service bureau committee.

For more than 20 years he was director of athletics for the gas company. He was active in civic, business and sports affairs in Portland and served as president of the Oregon Building Congress for eight years.

Book Gives Early Gas Industry History

A BOOK of exceptional merit and historic value in the gas industry has recently been published describing the origin, growth and activities of the Bartlett Hayward Division of the Koppers Company. Entitled "Iron Men and Their Dogs" by Ferdinand C. Latrobe, it contains 225 pages of historical information dating from 1832 until the present, and is well illustrated with old photographs, etchings and reproductions of carefully selected mileposts and accomplishments of the company. Handsomely bound and printed, it is written in an effective and interesting style.

As explained in the preface, "this story of the progress of 'Iron Men and Their Dogs,' portrays the growth of Bartlett-Hayward from cook stoves to massive reclamation project castings, from cast-iron to an epoch-making high tensile bronze, from domestic water heating boilers to gigantic modern gas holders and, as Baltimore auctioneers comprehensively declare, 'other genuine articles too numerous to mention.' All its progress has been under the talisman of two cast-iron replicas of the progenitors of the Chesapeake Bay Dog."

Of particular interest to utility men are Chapters 5, 6 and 8 which are devoted exclusively to the gas industry. Among other things, the book tells of the first water gas

plant the company built for the Spanish American Light & Power Co., Havana, Cuba, in 1880; the second was the water gas plant constructed for the Chesapeake Gas Company of Baltimore, in 1885. From those forerunners, the text goes on to describe the company's continual contributions and modern innovations in the gas industry. It mentions gas plants installed for many of the country's largest companies. Photographs of gas holders of various types, historical cook stoves, early gas plants, and toluol recovery plants, are sprinkled generously throughout the text. The latter part of the book is devoted to the company's numerous defense activities.

It was prepared for employees of the company under the direction of Walter F. Perkins, vice-president of the Koppers Company and general manager of the Bartlett Hayward Division.

North Shore Gas Co. Elects Conover

A. W. CONOVER has been elected president and general manager of the North Shore Gas Company, Chicago, Ill., succeeding W. A. Baehr who is retiring after long and successful service. Mr. Conover was formerly vice-president and general manager of Central Ohio Light & Power Co., Findlay, Ohio, and has been in the utility business since 1916. Previously he was vice-president and general manager of Oklahoma Utilities Co. and of Colorado Central Power Company.

Wins McCarter Medal

CHARLES ROHM, foreman, customers' service department, The Philadelphia Gas Works Company, recently received a McCarter Medal for his outstanding work in saving life by the Schafer prone pressure method of resuscitation. Mr. Rohm had acted quickly and efficiently to revive a woman overcome by gas and his prompt work was recognized by the American Gas Association which makes the McCarter awards.

Presentation of the medal was made in the presence of company officials at a staff meeting on January 27.

A.G.A. Editor Joins Publishing Company

FREDERICK T. COLWELL, editor of the American Gas Association Proceedings for the past six years, has joined the advertising and circulation department of Crowell-Collier's Publishing Co., New York. Mr. Colwell holds a B.S. degree from New York University and also attended Columbia University for 2½ years. He joined the A.G.A. staff in July, 1935, and started his new duties on Feb. 9.

U.G.I. Engineer Opens Consulting Office

A. V. SMITH, electrolysis engineer, formerly with the United Gas Improvement Co., Philadelphia, opened offices on January 15 as consulting engineer, Broad Street Station Building, 1617 Pennsylvania Boulevard, Philadelphia.

Mr. Smith will specialize in cathodic protection, microbiological anaerobic corrosion, electrolysis and related subjects.

Old Timers

J. M. H. YOUNG, superintendent of the City Gas Company of London, Ontario, and W. H. McKenzie, president of the Wyandotte County Gas Company, Kansas City, Kans., have the unique distinction of being the only charter members of the former Natural Gas Association of America now actively engaged in the gas business.

The first meeting of the natural gas association was held in Kansas City in 1906.

Among other surviving members of this meeting are C. W. Sears of Pasadena, Calif., and Colonel M. W. Walsh of Louisville, Kentucky, both retired.

Gas Appliance Servicing Textbook Published

A N extremely valuable textbook on "Gas Appliance Servicing," prepared by Osborne B. Tabor of the Boston University College of Business Administration and edited by the Contact and Job Training Committee of the New England Gas Association, has just been published. The book is the result of two and one-half years of planning, preparation and editing on the part of the N.E.G.A. committee under the chairmanship of J. L. Johnson, sales manager, Providence Gas Co., Providence, R. I.

Comprising more than 250 pages, 8½" by 11", and containing 192 illustrations, diagrams and tables, it explains fully the chemical and mechanical principles underlying the operation, repair and adjustment of gas appliances. It contains chapters on gas manufacture, distribution, theory of combustion, service training and policies and detailed instructions for servicing various types of domestic appliance burners and controls. The text is written in non-technical language for both experienced service men and apprentices.

A unique feature of the book is a topical outline for the use of executives in giving service men instructions regarding company policies and procedures. Only topics are given in this chapter and executives use their own local material.

Copies of the book may be purchased from the Bureau of Business Research, Boston University College of Business Administration, 685 Commonwealth Ave., Boston, Mass., at the following prices: single copies \$7.50; 2 to 20 copies \$6.00 each; more than 20 copies \$5.00 each.

AFFILIATED ASSOCIATION *Activities*

Southern Gas Convention Stresses Industry's War Problems



H. Carl Wolf

WITH their attention riveted on war problems, approximately 400 executives of southern gas companies took part in the annual convention of the Southern Gas Association at the Atlanta Biltmore, Atlanta, Ga., and mapped out an aggressive victory program. Under the fine leadership and coordinating ability of the Association's president, H. Carl Wolf, president of the Atlanta Gas Light Company, the convention produced valuable and timely material to aid the gas industry's part in the war effort.

L. B. Denning, Jr., vice-president, Community Natural Gas Co., Dallas, Texas, was elected president of the Southern Gas Association for the current term. Other new officers are: Frank C. Smith, president, Houston Natural Gas Co., Houston, Texas, first vice-president; Frank S. Kelly, Jr., Arkansas-Louisiana Gas Co., Shreveport, La., second vice-president; and L. L. Baxter, Arkansas Western Gas Co., Fayetteville, Ark., secretary-treasurer (re-elected).

The major part of the general sessions' program was devoted to answering the question: "How Can the Gas Industry Contribute Most Effectively Toward Winning the War?" As the opening speaker on this subject, George S. Hawley, of Bridgeport, Conn., president of the American Gas Association, made a profound impression with his clear cut call for faith in ourselves and our country. It was his first visit to Atlanta and he was received with enthusiasm. His address is published in full elsewhere in this issue.

Other speakers who covered different fields of activity related to the war program were: A. S. Johnson, president, Southern Union Gas Co.; George F. B. Owens, The Brooklyn Union Gas Co.; H. R. Cloud, Florida Public Service Co.; Frank C. Smith, president, Houston Natural Gas Co.; Eugene D. Milener, American Gas Association; D. C. Schnabel, Bozell & Jacobs, Inc.; Emma Wood, Louisiana Public Utilities

Co.; John B. Reeves, Priorities Field Service, Atlanta; Harold Vagborg, director, Institute of Gas Technology; and Charles B. Gamble, Birmingham Gas Company.

These speakers made valuable contributions on conservation; property protection; home service, sales, servicing and advertising problems; priorities; research; Association activities; and cooperation with civilian defense. In short, the symposium presented a well-rounded picture of contributions of various departments to the overall war program.

An outstanding feature of the convention was the inspiring address of Rev. Pierce

Harris, First Methodist Church, Atlanta, which held a capacity audience during the luncheon meeting. Another hit was Carl Sorby's dramatic presentation "Know'em, See'em and Sell'em."

Sales promotion during wartime was the theme of the sales conference under the direction of J. H. Warden, Oklahoma Natural Gas Co., Tulsa. Davis M. DeBard, Stone & Webster Service Corp., was the keynote speaker at this meeting. His remarks are published elsewhere in this issue. George Jones, Servel, Inc., and G. M. Rohde, Jr., Ruud Manufacturing Co., discussed refrigeration and water heating problems during the emergency. Harrison Jones, vice-president, Coca-Cola Company, made an inspirational address.

A lively session devoted to industrial and commercial gas subjects was held under the chairmanship of H. G. D'Spain, Mississippi Public Service Co., Amory. Papers discussed from the floor ranged from the application of gas for counter appliances to making steel for steel mills.

Distribution, gas conditioning, and other technical problems were fully covered at the technical conference during a symposium led by H. N. Oldham, New Mexico Eastern Gas Company, Carlsbad, N. M.

The home service round-table, which was an informative part of the convention, is reported in a separate article.

New England Conference in March to Report on War Operations

WAR and post-war operations will be the theme of the sixteenth annual business conference of the New England Gas Association which takes place March 19-20 at the Hotel Statler, Boston. Under the leadership of Charles G. Young, president of the Association and manager of the Springfield Gas Light Co., the New England gas men will re-examine their problems in the light of war conditions. With many factories of the "Arsenal of Democracy" located in their locality, wartime operation has brought many changes and problems which will be thoroughly reviewed.

The opening meeting Thursday morning, March 19, will be devoted largely to Association affairs, including the presentation of sales contest awards to companies and best paper awards to individuals; a review of the Association's year by Clark Belden, executive director; election of officers; address of the president; and a description of manufacturers' activities by Watson E. Derwent, president, Association of Gas Appliance and Equipment Manufacturers. A highlight of this session will be an address by Edwin H. Schell, Massachusetts Institute of Technology, on "National and Industrial Survival."

Features of the Thursday afternoon meeting are addresses on "Civilian Defense—Why, What and When" by J. W. Farley,

executive director, Massachusetts Committee on Public Safety, and "Gas Company Operation During War" by A. I. Phillips, consulting engineer and editorial director, *American Gas Journal*. The important problem of "Free or Paid Appliance Servicing?" will be discussed by James A. Cook, Lynn Gas & Electric Company. Other addresses at this meeting will be: "The Institute of Gas Technology," Harold Vagborg, director of the Institute; "New Problems for Accountants," E. F. Embree, New Haven Gas Light Co.; and "Current Purchasing Problems," R. E. Shillady, New England Power Service Company.

A varied program will be presented Friday morning, March 20, opening with a paper on "Public Relations Developments" by Mr. Belden, who in addition to being N. E. G. A. executive secretary, served as chairman, Public Relations Committee, American Trade Association Executives, 1939-41. On the agenda for this meeting are the following: "The 1942 Home Appliance Market," Arthur P. Hirose, McCall Corp.; "Home Service Today," Ruth Soule, The Brooklyn Union Gas Co.; "Testing Applicants for Employment, Transfer, or Promotion," Herbert W. Saul, Boston, Y. M. C. A.; "Why the Gas Industry Needs Detailed Market Studies," Henry O. Loebell, Combustion Utilities Corp.; and "Keeping Pace with Industrial Develop-

ments," C. B. Phillips, Surface Combustion Corp.

George S. Hawley, president, American Gas Association, and president, The Bridgeport Gas Light Co., will open the concluding session, Friday afternoon, with an address in which he will lay down fundamental principles to serve as a guide in the conduct of gas utilities during the war and describe briefly some of the war-time activities of the national Association. The W. P. B. salvage and scrap speed-up program of the Government will be explained by George Sutherland of the War Production Board. The role of forecaster and post-war planner has been allotted to Malcolm P. McNair, Massachusetts Committee on Post-War Adjustments, and professor of marketing, Harvard Graduate School of

Business Administration. His topic is "Afterwards—What Then?" The conference will close with an analysis of the progress of the manufactured gas industry by W. D. Gay, manager, utility department, Standard and Poor's Corporation.

Indiana Gas Association

THE program committee for the annual meeting of the Indianapolis Gas Association, to be held May 11 and 12 in Indianapolis, consists of: C. V. Sorenson, Northern Indiana Public Service Co., Hammond; E. G. Peabody, Citizens Gas & Coke Utility, Indianapolis; H. G. Horstman, Public Service Co. of Indiana, Indianapolis; and V. C. Seiter, Citizens Gas & Coke Utility, Indianapolis.

CONVENTION CALENDAR

MARCH

- Mar. 2-6 American Society for Testing Materials
Cleveland, Ohio.
12-13 A. G. A. Industrial and Commercial Gas Sales Conference
William Penn Hotel, Pittsburgh, Pa.
16-17 Wisconsin Utilities Association, Gas Section
Schroeder Hotel, Milwaukee, Wis.
19-20 New England Gas Association
Boston, Mass.
20 A. G. A. Mid-West Round-Table Sales Forum
Palmer House, Chicago, Ill.
23-24 Oklahoma Utilities Association
Biltmore Hotel, Oklahoma City, Okla.

APRIL

- Apr. 13-15 Mid-West Gas Association
Sioux City, Ia.
17 Maryland Utilities Association
Lord Baltimore Hotel, Baltimore, Md.
19-21 Gas Meters Association of Florida-Georgia
Savannah, Ga.
21-23 Southwestern Gas Measurement Short Course
University of Oklahoma
Norman, Oklahoma
27-30 U. S. Chamber of Commerce
Chicago, Ill.

MAY

- May 4-7 A. G. A. Natural Gas Convention
New Orleans, La.
4-7 A. G. A. Distribution Conference
New Orleans, La.

- 11-12 Indiana Gas Association
Indianapolis, Ind.

- 11-15 National Fire Protection Association
Atlantic City, N. J.
25-27 A. G. A. Production and Chemical Conference
New York, N. Y.

JUNE

- June 4-5 Canadian Gas Association
Windsor Hotel, Montreal
5 American Management Association
Pennsylvania Hotel, New York, N. Y.
8-11 American Society of Mechanical Engineers Semi-Annual Meeting
Cleveland, Ohio
22-26 American Society for Testing Materials Annual Meeting
Chalfonte-Haddon Hall, Atlantic City, N. J.

SEPTEMBER

- Sept. 28 Pacific Coast Gas Association
San Francisco, Calif.
Sept. 29, 30, American Gas Association
Oct. 1 Annual Meeting
San Francisco, Calif.

OCTOBER

- Oct. 5-9 National Safety Congress and Exposition
Chicago, Ill.

NOVEMBER

- Nov. 4-7 American Trade Association Executives
The Homestead, Hot Springs, Va.
17-22 National Chemical Exposition and National Industrial Chemical Conference
Stevens Hotel, Chicago, Ill.

Wisconsin Utilities Association

THE program for the annual convention of the Gas Section of the Wisconsin Utilities Association which will take place March 16 and 17 at the Schroeder Hotel, Milwaukee, is rapidly rounding into shape. In view of the recent move to introduce natural gas to Wisconsin, O. W. Barenz and C. A. Debelle, chairmen of the technical and commercial divisions of the Gas Section, have arranged for complete discussion of subjects related to changeovers.

L. F. Seybold, president of the Wisconsin Utilities Association, will speak on the gas industry's duties during the war and will also present a statistical summary of the industry's progress in Wisconsin. Other outstanding speakers on the program include: George S. Hawley, president, American Gas Association; Watson E. Derwent, president, Association of Gas Appliance and Equipment Manufacturers; Dean W. Flowers, general manager, Michigan Consolidated Gas Co., Muskegon; John E. Bogan, A.G.A.E.M.; C. V. Sorenson, Northern Indiana Public Service Co.; W. J. Grover, Surface Combustion Corp., Toledo; and Prof. Otto Kowalke, University of Wisconsin.

Additional speakers dealing with defense of gas plants and distribution systems, as well as priorities, are expected to take part. Round table conferences will be held to discuss emergency experiences and change-over topics.

Maryland Utilities Association

THE spring meeting of the Maryland Utilities Association will be held at the Lord Baltimore Hotel, Baltimore, on Friday, April 17. The entire day will consist of a combined meeting of the Gas, Electric and Transportation Groups.

Three speakers will address the morning session on the subjects of sabotage, priorities and personnel. The afternoon session will be addressed by DeLoss Walker. Annual election of officers and directors will follow Mr. Walker's address.

Pennsylvania Natural Gas Men's Association

AT the recent annual meeting of the Board of Directors, C. E. Bennett, president, Manufacturers Light & Heat Co., Pittsburgh, was elected president of the Pennsylvania Natural Gas Men's Association. F. M. Sloan, Murrysville, Pa., was named vice-president and B. H. Smyers, Jr., Pittsburgh, was re-elected secretary-treasurer. Mark Shields continues as executive secretary of the Association with office in the Grant Building, Pittsburgh.

Newly elected directors for 1942 are: C. E. Bennett, E. M. Borger, H. D. Freedland, T. B. Gregory, D. P. Hartson, D. S. Keenan, B. D. Phillips, S. C. Preston, F. F. Schauer, George E. Welker and George Wittmer, Jr.



Accounting SECTION

LYMAN L. DYER, Chairman
L. A. MAYO, Vice-Chairman
O. W. BREWER, Secretary

Motor Vehicle Operations as Viewed by the Accounting Department

A expenditure representing from two and one-half per cent to four per cent of our total operation and maintenance is a pretty sizeable amount proportionately in any utility company. We, in the accounting field, are inclined to devote considerable time and attention to our uncollectible accounts, the amount spent for sales promotion, or the cost of reading meters.

We analyze and compare and spend hours of time in finding ways and means to reduce them. And yet there is one operation which may aggregate fifteen times the amount of our uncollectibles and three times as much as our meter reading, to which many companies pay relatively little attention. I refer to the motor vehicle department.

Transportation Expenses Buried

It is not difficult to find out why this department is so often assigned to the limbo of forgotten things. Examine a financial statement carefully, and you will find on the balance sheet an account labeled "Transportation Expenses—Clearing." In it is a small amount representing the unapportioned balance of the cost of operating the transportation department. Way in the back buried among the detail you will find one line which shows the charges and credits against the account for the current month together with the opening and closing balances. The costs are spread in the operating expenses of all departments and in the fixed capital account, but nowhere do they stand out separately.

Some utilities, particularly the larger ones, employ a Transportation Superintendent whose sole responsibility is to supervise operations of the fleet. He is naturally striving toward lower costs and greater efficiency of operation. In numerous other companies, management of the fleet is merely an added responsibility of an operating department head, quite often the Distribution Superintendent, and the greater part of his attention is naturally directed to running the operating department.

And so, the transportation costs go along from month to month. Occasionally they come to the attention of the management, but usually not in the same way that the other expenses do. It is feared some managements do not have a definite conception of the total amounts involved. Frequently they know that they are operating at so much per mile, but they forget that even a small unit cost, when applied to thou-

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sands and millions of miles, amounts to a very tidy sum.

In some instances this department has been allowed to grow quite out of proportion to the growth of the company. One community of which the writer is aware was served twelve or fifteen years ago by one bicycle. It is now served by several motor vehicles.

The Treasury Department, as the watchdog of the cash box, has of course the duty of studying costs of operations and bringing to the attention of the management those operations where costs are rising more rapidly than is justified or where reductions in existing costs might be made. In order to perform this duty properly as to fleet operation, it is the opinion of the writer that the automotive department must be considered as a separate entity and not merely as an adjunct of other departments.

Potential Savings Great

One example of the functioning of the Treasury Department in bringing down these costs will serve to illustrate the potential savings. The equipment involved travelled about 26 million miles per year. The cost of operation averaged somewhat over 6½¢ per mile or a total of \$1,720,000 per annum. The Treasury Department became interested at about that time.

A committee was formed composed of the Treasurer and the Transportation Supervisors. Under the auspices of the committee a study was made of the company's motor vehicle operations. Recommendations were made as to certain operating changes. These included extending the life of the vehicles before retirement. (Since increased from an average of between 45,000 and 50,000 miles to present retirement mileage averaging 80,000 miles.) More informative reports were devised for the Motor Vehicle Supervisors. A better classification of accounts was established for transportation costs. Periodic meetings provided the media whereby the motor vehicle operators could exchange ideas for the benefit of all.

Today transportation costs are at about 4½¢ per mile, among the lowest in the industry, and the saving of 2¢ per mile represents a total saving of about \$500,000 per annum.

The public utility industry, along with all others, is now faced with rising material prices, higher wages, and increased taxes. But the public utilities cannot offset these higher costs by raising the prices of its goods, at least not at will. Therefore, we must effect all possible economies in operation.

And just as important, if we are to continue the high standard of service we have trained the public to expect, we must at this time conserve our motor vehicles, tires and operating supplies, to the greatest extent possible or we may find ourselves without the equipment to run.

Conservation of Equipment

The following are some of the specific things the Treasury Department can do to aid the Motor Vehicle Departments to cut costs and conserve equipment:

1—Make available complete monthly operating reports. Such reports should include certain data for each car and the balance may be grouped by classes of vehicle. Gallons of gasoline, quarts of oil, hours of repair labor, and number of miles travelled should all be furnished by vehicles. These are the items over which the supervisor can exert the greatest control and current knowledge of them will enable him to measure the operating efficiency of each car and to detect at an early date any adverse trends in the operation of a vehicle. Dollar costs may be grouped by make and class of vehicle. These will enable him to compare the relative operating costs of the different makes of equipment as applied to his particular operation.

2—Establish a classification of accounts which will yield the most information to the motor vehicle supervisor. These should segregate operating costs over which he has direct control from those over which he has little or no control.

As an accompaniment to an informative classification of accounts, it is helpful in measuring costs to effect a method of providing property reserves for the retirement of motor vehicles which will correspond as nearly as possible with the actual loss in value in this short-lived type of property as it is sustained. To accomplish this requires a segregation of equipment into classes such as light, medium and heavy passenger cars and light, medium and heavy trucks. By charting all vehicles retired over the several preceding years as to age in months at retirement and trade-in value

received, a median can be determined on which an accrual schedule can be based.

The accrual rates for light passenger cars resulting from such a study were as follows:—25 months at 2%, 20 months at 1%, thereafter at $\frac{1}{2}\%$.

General experience has been that the greatest loss occurs in the early years, then at a somewhat slower rate and finally only very gradually. Rarely, regardless of age, does the value of a vehicle stand still. Therefore, to write it down to a fixed salvage value over a period less than its normal life invites early replacement with a new car on the grounds that it has been "fully depreciated."

3—Analyze job tickets to determine usage of equipment and aid in eliminating unnecessary mileage, whether this be business mileage or personal mileage. This is particularly important now. Every mile of unnecessary travel which can be eliminated at this time means a mile which can be run for essential service at a later date, when it may be impossible to obtain replacement equipment or supplies.

For example, a local tire board has refused to certify new tires for a car used by a collector. An analysis of the results obtained by collectors may establish that these men visit the same customers month in and month out. If other methods of collection could be devised possibly not only the car may be withdrawn but the collector could be used for other work. Another case might be appliance installation trucks where a drop in appliance sales might permit coverage of the same territory by fewer pieces of equipment. Or possibly auditors, home service personnel, etc., might as conveniently use the public conveyances as automotive equipment, or maybe a few bicycles.

The above are but a few examples. It would not be possible to set forth in a limited space all the aid which could be given by the Treasury Department to the Transportation Department. The important aspect is that the cost of motor vehicle operations in most utilities is a substantial amount and the Treasury Department has as great a responsibility in this field as in any other operation. To repeat, to properly measure the cost of this department it must be treated on its own feet and not as an accessory of other departments.

Gas Company Museums To Be Listed

THE American Association of Museums, Washington, D. C., is preparing a book on Company Museums and desires to include any such museums in the gas industry field. Assistance in locating such museums or any other permanent collections and exhibits maintained by gas companies will be greatly appreciated. Anyone who can supply such information should address it to Luis Hilt, librarian, American Gas Association, 420 Lexington Ave., New York, N. Y.

Get That Waste Paper into Use

(*The Gas Times*, London, November 15, 1941)

WE have made many appeals to our readers to get waste paper back to the mills for refabrication into those particular forms of "paper" which are so essential to the war effort. But we know that the term "waste" is being translated in its peace time sense and the waste is not coming in as it should. Now this refabricated paper goes largely into making what most folk think of as "cardboard" of varying weights—and it is just that product which is now MOST URGENTLY NEEDED for building up the supply of munitions.

Shells, mines and indeed every weapon of war has this "cardboard" somewhere in its make-up. We have the details; but you must take our word for it that waste paper is as vital as toluene, planes and ships. Just one of those unobtrusive items which may decide the issue. May we suggest that a new concept of what is really waste paper

must direct all our actions? The accountant thinks that he must keep a few years' files and so on—just in case anything may arise—it never does. Get out the files and if a question arises it cannot be as important as getting out the weapons of war. Others may think that they simply must hold on to this or that—just in case. Well, "just in case" does not count against the imperative needs of the times. So, even though it may break your heart to part with a file or other compilation, get it away to the mill for conversion into one or other of the war weapons.

We take our own medicine. We live, as it were, by paper; but we have been ruthless in clearing out tons of carefully collected records and so on. That action will cause us a lot of trouble; but what of that in these times? Old ledgers and books of all sorts, old files—and, indeed, almost everything that is not absolutely essential to the immediate affairs of your undertaking—get them away to the merchant for transfer to the mill—and thence to back the war effort. Don't delay—do it today.

New Gas Appliance Sales Course

THE California State Department of Education, cooperating with the Pacific Coast Gas Association, has just completed a sales training course for gas appliance salesmen. The course will be made available to individuals, associations and other groups interested in retail merchandising of gas appliances. In California, under the provisions of the George-Dean Act, instructors will be provided for classes in communities where a program of distributive education is in operation. No doubt, similar arrangements can be made in other states which are cooperating with the Federal government in encouraging sales training.

This course is made available in fourteen separate units, each unit dealing with one phase of selling gas appliances. Titles are as follows:

- Unit 1. Gas Information Manual for Salesmen.
" 2. Science and Art of Successful Selling.
" 3. What Makes People Buy Gas Appliances.
" 4. The Salesman and the Sales.
" 5. When Customers Call.
" 6. Prospecting from Inside the Store.
" 7. Getting Business Outside the Store.
" 8. The Development and Use of a Prospect File.
" 9. Preparing To Make an Effective Sales Presentation.
" 10. Making an Effective Gas Range Presentation.
" 11. Making an Effective Presentation of Automatic Gas Water Heaters.

- " 12. Making an Effective Gas Refrigerator Presentation.
" 13. Making an Effective Presentation of Gas Heating.
" 14. Types and Traits of Prospects.

The course is Business Education Publications, No. 7, of the Bureau of Business Education, California State Department of Education, Sacramento, entitled "Sales Training Program for Gas Appliance Dealers and Salesmen, Merchants, Plumbers and Distributors." The fourteen units comprising the course contain 215 pages, mimeographed on standard size ($8\frac{1}{2} \times 11\frac{1}{2}$) sheets, twenty pound stock; each unit is separately assembled and stapled between flexible covers. It was prepared by Ferris M. Wakeley, a staff instructor of the Bureau of Business Education, under the supervision of Dr. Ira W. Kirby, chief of the Bureau. Assisting in an advisory capacity was a committee of the Pacific Coast Gas Association headed by O. R. Doerr, general sales manager, Pacific Gas and Electric Company, and including R. V. Davis, Southern California Gas Company; Murray Holloway, San Diego Gas and Electric Company, and Harrison Musgrave, Southern Counties Gas Company, together with members of the staff of the Bureau of Business Education.

Copies of the course may be purchased from the California State Department of Education for 20 cents a unit or \$2.50 a set of 14 units. Address: California State Department of Education, Bureau of Business Education, 114 Haviland Hall, University of California, Berkeley, California.



Residential SECTION

E. J. BOYER, Chairman
B. A. SEIPLE, Vice-Chairman
J. W. WEST, Jr., Secretary

Gas Service Promotion in Wartime



Davis M. DeBard

THE gas industry is all out to win the war. Whatever changes are needed in its methods of promotion and operation will be willingly and gladly met that this end may be accomplished. We know we are faced with the job of helping to preserve the American way of life by aiding in every way possible the all-out war production effort. It is important that we constantly seek to maintain and improve the service we render to homes and industries, as well as to extend its advantages to those on our present mains who are not now using it.

It is important, too, that we keep our companies in a sound financial condition to meet the taxes and emergencies that may arise from our war effort. This may necessitate rate increases, elimination of some of the free service rendered during the past, and other operating adjustments.

Promote "Savings" Angle

As a wartime promotional effort, should we not increase our effort in making known to our customers the value of vitamin saving cooking? The necessity for proper preservation of food to prevent waste? The importance of cleanliness and sanitation in fighting disease; and the importance of keeping in the best of health and condition for the sacrifices which we are bound to have to make? In other words, should we not promote gas service in terms of food saving, time saving and money saving which are of great value in our defense and war effort?

During the past few years promotion was largely centered upon the campaigning and selling of appliances. With factory production being converted to the manufacture of war materials, the production of gas appliances has been, and will be even more, curtailed. The number of lines will be greatly reduced. In fact, certain publicity has been given *victory* type of appliances, which will be stripped models, largely for defense housing. A recent survey showed that Regulation W, with its higher down payment, has increased sales resistance in 43% of the areas covered, reducing the volume of sales materially. There are in-

- Curtailment of national and regional sales conferences makes it imperative that there be made available full and complete discussion of the elements of sound promotional policy during the war. Mr. DeBard's straightforward analysis of the sales situation is a valuable contribution to the industry's thinking in this respect.
- This paper was presented by Mr. DeBard at the Southern-Southwestern Regional Gas Sales Conference during the Southern Gas Association Convention in Atlanta, Ga., Feb. 9 and 10.

By DAVIS M. DEBARD

Vice-President, Stone & Webster Service Corporation, New York, N. Y.

dications that terms will be reduced even to a greater extent as has been done in Canada. The selling of certain types of house heating apparatus may be stopped. Thus, promotional methods which we have used in the distribution and advertising of appliances through dealers and through our own sales efforts during the past few years, will be materially changed.

A survey reveals that companies and dealers have sufficient inventories on the whole to carry them during the next few months. Their selling effort must be continued in order that this equipment is not frozen and allocated in the same manner that the automobiles have been.

It is appropriate at this time to review a few facts which prove that our past promotional activities have achieved results:

At the end of 1941 our industry was serving 18½ million customers which is one-half million more than it ever served.

Gross revenue in 1941 amounted to \$909,441,000 which is the highest ever recorded and is 4.3% over 1940. Manufactured gas sales revenue was up 2.2% over 1940 and natural gas sales revenue was 6.0% over 1940.

During 1941 2,200,000 gas ranges were sold, of which 150,000 were Certified Performance. This was an increase of 28% in total range sales over 1940. 750,000 automatic water heaters were sold, a 50% increase. Furnaces, boilers and conversion burners were also up 50%. Gas refrigerators hit a new high prior to production restrictions.

These results were obtained by the local activities of the individual companies and their dealers, plus the combined promotional efforts of the American Gas Association and the Association of Gas Appliance and Equipment Manufacturers. It is certain such results could not have been obtained without both local and national promotion.

At the present time 95% of all gas appliances sold in the United States and Canada display the approval seal of the A. G. A.'s Testing Laboratories. More than 200 municipalities have ordinances permitting only approved gas equipment to be installed. Records of the Bureau of Census show that since the establishment of the laboratories 16 years ago accidental deaths resulting from gas poisoning have decreased 50%. Moreover, operating efficiency of household gas appliances has increased 25 to 50%.

Necessity for National Effort

If any one has doubt as to the value of our national association, I recommend that he cogitate upon these achievements, especially their value to the customers we serve. I recommend to you members of this industry that you review these achievements for I am sure that they will show you the absolute necessity that our national promotional efforts be continued, with due recognition of today's war conditions.

The gas industry has an enormous investment in public acceptance of gas, the modern fuel. Our promotion efforts must now be directed toward maintaining the high degree of public acceptance which it now enjoys. This is already the new objective of the National Advertising Committee and of the Sales Committees of the A. G. A., and should become the objective of every progressive gas company.

Our greatest asset is our existing customers. We owe it to these customers to use our best efforts in seeing that the dealers and our own service departments render the best program of adjustment and repairs in order that their existing equipment may serve them in the most efficient manner during the war period. We owe it to the new defense homes and plants built in our territories to secure promptly such priorities as will enable adequate service to be rendered to them. We owe it to the people of our community to cooperate in every way possible with the Local Civilian Defense Committees and assume leadership

where that leadership can best be supplied by the personnel of our organizations. We owe it to our government to promote the sale of Defense Bonds and Defense Stamps in every possible way.

The general public is anxious to be of service in the war effort. They need and will welcome proper direction. Many of our personnel are capable of local community leadership. This leadership should be forthcoming. For instance, the 1914-18 period shows that those companies whose personnel were active in the war effort of the local citizens, were rewarded many years afterward for their contribution. In other words, they created a surplus of local good will.

The Home Service Departments have a golden opportunity to teach nutrition, vitamin cooking, food saving, time saving and money saving in the preparation of foods. A case was recently called to my attention of a large gas company whose Home Service Department announced a course in Nutrition in substitution for the usual instructions on new equipment sold. They found the interest so great that they have organized daily classes with registration on a school basis, so each one has her particular time and day per week to attend. Certainly, here is proof of home service value.

Trained Man Power Vital

We should balance our sales organizations with the promotional job to be done, keeping in mind that a trained salesman is a real investment and asset to any company. When this war is over there will be a tremendous surplus of electric capacity in both private and government owned water power projects. There will no doubt be quantities of oil and perfected oil-burning appliances. There will be the keenest competition for the consumer's dollar among all manufacturers of durable goods. I need not elaborate to tell you that the competition will be keen and those companies and dealers who prepare now for a peacetime sales effort and continued public acceptance of our product are the companies and dealers who will reap the greatest rewards. Thus, I recommend that you maintain and utilize to the best advantage your trained man power in which you have a substantial investment.

What are companies doing about their dealers?

1. Companies that were not merchandising are planning to continue their educational and gas service advertising, in fact, all of their previous promotional activities, adapted to war conditions, except direct merchandise campaigns.

2. Some companies have ceased all their direct merchandise activities and are leaving the sale of all such appliances that are available to the initiative of their local dealers.

3. Most companies that not only sell appliances but have stimulated their sales by dealers, plan to continue on a basis which will assist the dealer as much as possible during the war period.

Dealers in general may be divided into three classes:

1. Dealers whose gas appliance business is but one department of their business, such as, department stores, furniture stores, etc.

2. Specialty dealers who sell gas appliances and one or two additional lines of merchandise.

3. Plumber dealers.

I believe in the case of dealers in the first classification, all we can do is to continue our present methods of cooperation. In the case of dealers in the second and third classification I would recommend that

we give serious consideration to interesting these dealers in increasing their service work. In many cases the utility can assist the dealers in this matter by giving them the benefit of their experience in service work and may help still further by establishing adequate charges for appliance services rendered by themselves in order to encourage customers to have this work done by dealers. They may also assist in permitting the dealer to draw from company merchandise stock.

After the war, the sale of modern gas appliances will again become the spearhead of the gas industries defense against the competition sure to follow. The part the dealer should play today, and can play, in meeting post-war competition, is dependent upon so many factors that each locality is an individual problem. The economics of both parties, utility and dealer, must be considered in arriving at a solution.

No Curtainment of Advertising

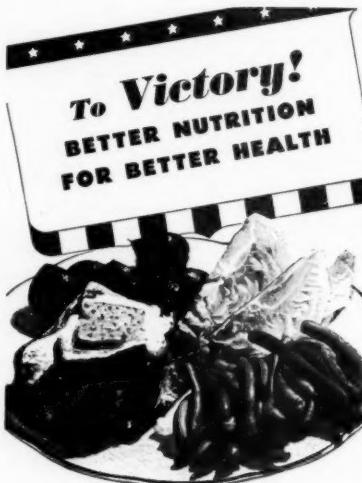
There seem to be no plans for curtailing of advertising. For all practical purposes, the opportunity in this field is just as great as ever. It will, of course, be necessary in most cases to change the type of advertising that has been used in the past. In place of merchandise advertising, educational and gas service advertising will be substituted. A new copy platform, together with key copy and layouts is now being prepared as the spearhead of an entirely new program to be developed in conformance with the country's war effort by the A. G. A. National Advertising Committee. Specifically, the new consumer advertising will inaugurate:

1. Promotion of such government-sponsored war activities which the Committee, in its judgment, believes the gas industry is singularly fitted to perform as an outstanding public service; and an intelligent, far-sighted and completely unselfish program planned to help the consumer feed her family better during this wartime emergency.

2. The basic character of the program for the immediate future will be devoted to maintaining a high standard of national health, with emphasis on nutrition, balanced diets and low cost recipes, all tied in with the government's own effort.

No industry is in a more logical and advantageous position to make the furtherance of this program its own than is the gas industry. Eighty-five million people eat meals cooked by gas. This makes the gas industry perhaps the greatest single common denominator in the whole field of nutrition. This new program provides a matchless opportunity for the gas industry to step to the front as an authority in nutrition and food preparation to an extent which it has never done before. Such a program will help the nation. It will help the Government. And it will preserve and build for us a maximum of good will and continued acceptance for our product, gas.

The gas industry has for several months been lending a part of its national advertising space to promote the buying of



**serve
VEGETABLES**
**Your GAS RANGE is best for
vitamin-saving waterless cooking**

Vegetables—fresh, canned, or frozen—contain Vitamin A, some B vitamins, Vitamin C, and minerals.

For better health, serve a variety of vegetables, prepared in a variety of ways. With a modern Gas range in your kitchen to help you, you'll find there are dozens of ways to make vegetables appealing, appetizing, and delicious.

Cook vegetables in as little water as possible to save vitamins and minerals. Use the Gas range's waterless cooking method. Start cooking with hot water, and use water left after cooking for soups, soups and gravies.

Your Gas range will help you and your family to better health through better nutrition.



VITAMIN SAVER!

EAT DAILY FOR HEALTH:

The foods listed below are minimum daily requirements for adequate diet, as recommended by the U.S. Public Health Service.

Use these foods as the basis of your planning for Better Health Through Better Nutrition.

MEAT, EGGS, FISH—A meat, or equivalent amount of eggs, fish, or poultry, twice a day. One egg, a half pound of meat, or a fourth pound of fish, provide protein, calcium, phosphorus.

BREAD AND CHEESE—A loaf of bread, or equivalent amount of cheese, twice a day. One loaf of bread, or one-half pound of cheese, provide protein, calcium, phosphorus.

BREAD AND CEREALS—Two or more slices of whole wheat or enriched bread, or cereal, twice a day. One slice of bread, or one-half cup of cereal, provide protein, calcium, phosphorus.

FRUITS—Four or more fresh fruits or fruit juice, twice a day. One piece of fruit, or one-half cup of fruit juice, provide protein, calcium, phosphorus.

Have Leo Smiths, WXYZ, 6152 p.m., Monday through Saturday

**Michigan Consolidated
Gas Company**

415 Clifford CHerry 3500

A fine example of current gas company advertising

United States Defense Bonds and Savings Stamps. And I highly recommend to all gas companies that they, too, make a feature of this important war contribution in their local advertising and publicity.

In the preparation of this paper, I wrote to a representative group of large companies throughout the United States, and asked them to tell me what effect the war effort and regulations has had upon their gas sales, and to outline their promotional plans for the first six months of 1942. The replies received were of immeasurable value and I want to summarize, in a general way, what they had to say:

Effect on Sales Personnel

The number of merchandise salesmen now employed is from 10% to 50% less than a year ago. This reduction is the result of resignations, most of which came from men entering the armed services or war industries.

The number of industrial and commercial salesmen is about the same as last year, with the exception of a few industrial areas where there have been some increases.

The number of home service employees is the same as last year.

Effect of Consumers' Credit Regulation W

In general, Regulation W and other conditions, have increased sales resistance to such an extent that appliance sales have fallen off some 10% to 30%. It seems that the down payment is the chief obstacle rather than the limitation of 18 months. In areas which have a large amount of war work this regulation has had little effect on sales.

As to plans for the first six months of 1942, most companies expressed the thought that they expected new regulations and restrictions as the war program developed and that, therefore, the plans they had were tentative to the extent that such regulations and restrictions might affect them. From a study of the replies received it is very evident that the competitive situation, the amount of war work going on in the territory and the financial ability of the companies to meet wartime operating expenses and service demands, are the controlling factors in their 1942 plans.

Summary of Promotional Plans Reported

Personnel. It is the over-all belief that sales personnel will continue to be reduced by resignations of those going into the armed services and war work. Some companies expressed the thought that it would not be necessary to seek replacements. Others expressed the thought that there would be need of some replacements but believed it would be difficult to obtain them. Most companies will do everything in their power to keep their experienced sales personnel within their organization. They realize at what a disadvantage they will be when the war is over if they have to go out and build and train a new sales organization to meet the great post-war competition.

Appliances Available

Invariably each company expressed the belief that the number of appliances available other than those already in stock would be not more than 50% of 1941 and that further reductions were expected. There seems to be a belief that some war type appliances, such as, a Victory range, may be manufactured for defense housing and replacement purposes. The idea is that such appliances will not have any sales appeal built into them because as much of the critical metal as possible will be eliminated.

Advertising and Promotion

By far the large majority of the companies reported that they intend to continue with their scheduled amount of advertising and promotional work.

Following are quotations from the replies received which will give you an indication of the way 16 companies' sales executives throughout the country were thinking less than a month ago:

1. "It is, however, our intention to remain in the business of merchandising gas appliances and promoting gas service just as long as possible for we, too, realize that the public forgets the business when the business forgets the public."
2. "The electrical industry, both private and public, are adding tremendous capacity. When the war is over competition will be keen which behoves us to look now toward a peacetime selling organization and retain, even though they are placed into operating departments, our well trained sales personnel during the war, that we might have them available for the keen peacetime competition."
3. "We believe that a 'design for post-war sales' should be incorporated in both national and local advertising and we are planning accordingly in both our sales and advertising programs."
4. "Number of appliance dealers is expected to be reduced by as much as 25 to 50%."
5. "We feel that salesmanship will be essential to sell the appliances which are available even in the face of the shortage previously mentioned."
6. "We feel that the principal market will be among war production workers who will have more money left after increased expenses than they have ever had before. It is going to require real sales effort to sell this market principally because they will spend their money for other needs if the gas appliance men are not on the job."
7. "We anticipate that terms will be still further decreased to 12 months and that the down payment requirement will be increased above the present 20%."
8. "As we believe that the distribution of the vital necessities which we sell has a definite place in wartime economy, we intend to continue merchandising gas appliances on a sound and aggressive basis. If and when material shortages interfere we hope to work out a plan which will justify the continued operation of our trained selling organization."
9. "'A natural wartime tendency to wait before buying' has been a much more serious obstacle than government restrictions on installment buying."
10. "Because I believe our industry to be thoroughly conscious of its essential merchandising problem, I feel that gas companies generally will maintain key trained sales organizations and as many of their general sales personnel as changing conditions will permit."
11. "Although we believe that sales personnel will be progressively reduced, we do not anticipate making any major reductions in supervisory staff nor do we plan to change our organization setup."
12. "We hope to keep most of our better men and will make every effort to get sufficient equipment to keep them employed. If we get to a point where it is impossible to obtain ranges and refrigerators then we will probably have to curtail our sales department to some extent, although we will still try to keep a nucleus of our best men."
13. "Generally speaking, the majority of our gas companies are going to continue along their normal lines of sales endeavor to the best of their ability."
14. "Our gas properties are aware of this constant threat (electric cooking) and this is one of the major reasons that they have not deemed it safe to make any cut in sales and promotional expenditures."
15. "The vital contribution which the use of gas in the home makes to the nation's health and morale should be recognized, thus the maintenance of presently owned gas utilization equipment is of prime importance."
16. "Advertising appropriations should be stepped up where necessary to accomplish today's selling objectives, but very careful attention must be given to sales expense at an absolute minimum in order to aid in meeting the increased cost of operation and higher taxes."

In closing, may I say that the American gas industry has already made and is today making, a tremendous contribution to the successful prosecution of the war. In countless industries gas is supplying the necessary fuel energy in the manufacture of materials ranging from buttons to tanks. Many of its members are in the armed forces on land and at sea, and those on the home front are carrying on with a firm determination to "see it through," and at the same time to maintain our position as a major force in American business—to resume our work with vigor and enthusiasm when the victory is won and we and the peoples of the world are again permitted to take up our peaceful pursuits.

No War Casualty

WHEN workmen toured Philadelphia on Feb. 2 turning off the city's 22,000 gas lights in preparation for a black-out, it appeared that they were to be extinguished for the duration. However, less than 48 hours later the gas lights were burning brightly again. The increased danger of accidents and robberies in the darkened area, made it advisable to re-light them.

A.G.A. Sets Up National Nutrition Committee



B. A. Seiple

which will operate under the Residential Section.

B. A. Seiple, vice-president of Jersey Central Power & Light Company, Asbury Park, N. J., and vice-chairman of the Residential Section has been named as chairman of this important committee.

This committee will include among its members representatives of management, sales, home service and advertising, and will closely cooperate with the Association's Committee on War Activities and with the government. Its function will be to prepare and distribute nutrition information and to help local gas companies in cooperating with the National Nutrition Program.

The first meeting of the committee will be held at the Hotel Cleveland, Cleveland, Ohio, on Friday, February 27, at which time definite plans will be formulated.

Home Service Round-Table at Atlanta

K EYED to the theme of cooperation in the National Nutrition Program, the Home Service round-table program at the Southern Gas Association convention in Atlanta, Georgia, on February 9, presented viewpoints and activities under way which indicated a wide-aware program in many of the southern gas companies.

Emma Wood, home service director of the Louisiana Public Utilities Company, presided as chairman of the discussion. Others participating were Cephalie Lewis, Atlanta; Sarah Eve, Augusta, Georgia; Gertrude Payne, Dallas, Texas; Mildred Clark and Rosemary Locke, Tulsa, Oklahoma; Grace Larrabee, New Orleans, Louisiana; Thelma Holmes, Montgomery, Alabama; Lizbeth Urquhart, Macon, Georgia; Jane Wetherall, West Palm Beach, Florida.

Joie Kammer of the New Orleans Public Service Company, presented the Southern Home Service Scrapbook of 1942—an effective display of scrapbooks from the different companies—and pointed out the "paper work" of the departments;—advertising—recipe sheets—bill enclosures—display cards—courses of study for nutrition classes and for girl scouts—all in a form to offer much in an interchange of ideas.

Jessie McQueen of the American Gas Association contributed to the Scrapbook in outlining cross country activities of home service departments.

Mrs. S. R. Dull, well known through the South as author of the cook book "Southern Cookery" and as newspaper columnist on foods, was present and was introduced to a group of people who have long used her recipes and food hints in their home service programs.

In Atlanta, to serve the Negro customers in one of the new housing projects—the Atlanta Gas Light Co. provides a Negro demonstrator for classes for maids. This instructor, Gladys Powell, outlined her work and pointed out the interest taken by maids in the instruction on the operation and use of the new gas ranges.

Appliance Sales Spurred by Defense Bond Offer

A NOVEL idea to promote sales and at the same time assist in the sale of Defense Bonds was recently used with success by the Michigan Consolidated Gas Co., Muskegon District.

Immediately following the Pearl Harbor "incident," the need for contributions by the public for the purchase of Defense Bonds was evident. The gas company offered its customers free Defense Stamps with the purchase of any major appliances. The

amount of stamps given with each purchase was limited to 5 per cent of the price of the appliance. The salesman making the sale delivered the stamps to the customer after the appliance was installed.

The promotion was carried on from December 12 to January 1, and, according to Arthur F. Dahlman, assistant sales manager, "resulted in a number of sales that otherwise would not have been made."

Eastern Sales Managers Hold Forum

SALES managers of residential natural gas companies in the states of New York, Ohio, Pennsylvania and West Virginia attended a round table forum held by the Residential Section of the American Gas Association in Pittsburgh on February 17 and 18. F. B. Jones, general sales manager, Equitable Gas Company, presided as chairman. Topics discussed included ways and means of maintaining an effective nucleus of sales personnel during the war; methods of maintaining public acceptance of residential gas service and the outlook for the production of residential appliances.

At the conclusion of the discussion, those present voted to hold a similar meeting at the end of six months for the purpose of aiding companies in the Eastern natural gas district to meet changing conditions.

1941 CP Ranger Club Hits New High

WITH 132 gas companies from all parts of the United States and Canada representing more than 8½ million domestic meters and 8,500 gas company and dealer salesmen registered, the year 1941 was the best ever experienced by the CP Ranger Club.

The CP Ranger Club sponsored by the American Gas Association and the CP range manufacturers provided cash, trip and honor awards for gas company and dealer salesmen who compiled outstanding CP sales records as well as honors for gas company sales managers and supervisors, home service personnel and CP range manufacturer representatives, and trophy awards for individual gas companies.

During the year, 273 gas company and dealer salesmen shared in the March, April and May cash contest awards. In addition, 530 salesmen achieved the rank of CP Ranger by selling 25 or more CP ranges and 505 salesmen became Star Rangers by selling 50 or more CP's with the total membership of the club, including home service, sales managers and supervisors and CP range manufacturers' representatives, for the entire year soaring to 1138.

A check of the records indicates that more than 43,000 CP ranges were reported sold by the above-mentioned salesmen.

Keen and spirited competition resulting in close races in each of the 7 Divisions for the coveted Best Performance Award and the CP Divisional Victory Trophies was a feature of the year's activities and the winners of these awards were as follows:

National Best Performance Award (awarded to the company doing the best CP promotional job): Republic Light, Heat & Power Company, Inc., Buffalo, New York.

Divisional awards (awarded to the gas company in each division with the greatest number of company and dealer range sales per 1,000 1-2-3 family domestic meters) were as follows:

Division I—Southern California Gas Company, Los Angeles, Calif.

Division II—United Gas Corporation, Houston, Texas.

Division III—San Diego Gas & Electric Company, San Diego, Calif.

Division IV—Jersey Central Power & Light Company, Asbury Park, N. J.

Division V—Mobile Gas Service Corp., Mobile, Ala.

Division VI—Florida Public Utilities Co., West Palm Beach, Fla.

Division VII—Alabama Gas Company, Anniston, Ala.



Industrial & Commercial Gas SECTION

GEORGE F. B. OWENS, Chairman
B. H. GARDNER, Vice-Chairman
EUGENE D. MILENER, Secretary

Industrial and Commercial Gas Conference in March Geared to War Production Problems



Geo. F. B. Owens

GEARED to help the gas man fulfill wartime requisites speedily—to eliminate delays by making the most effective use of industrial and commercial gas in the war effort in every community—the A. G. A. Industrial and Commercial Gas Conference will take place Thursday and Friday, March 12 and 13, at the William Penn Hotel, Pittsburgh. With George F. B. Owens, chairman, Industrial and Commercial Gas Section, and assistant vice-president, The Brooklyn Union Gas Co., presiding with the assistance of Ben H. Gardner, vice-chairman of the Section and vice-president, Columbia Engineering Corp., Columbus, Ohio, a program studded with outstanding speakers and timely topics will be offered.

War Production Blueprint

Heeding the words of Donald M. Nelson to "produce too much too soon . . . not too little too late," the program will present a war production blueprint for gas men. At the first general session, Edward M. Borger, president, The Peoples Natural Gas Co., Pittsburgh, will outline the vital role of industrial and commercial gas engineers in the war effort. Meeting the problems of a rapidly expanding war production will be presented by Henry M. Heyn, Surface Combustion Division, General Properties Co., Inc., and J. P. Leinroth, Public Service Electric & Gas Co., Newark, will describe wartime relations of industrial and commercial gas with civilian establishments. To round out the war picture at this session, Major L. A. McQuown, Utilities Division, District Ordnance Office, Pittsburgh, will speak on "Fuel Problems Confronting the War Production Program." At a special luncheon following this meeting, William E. Leverette, Nashville Gas & Heating Company, will discuss "The Termination of the Emergency—Then What?"

One of the Thursday afternoon meetings, devoted entirely to industrial gas subjects, opens with an address by D. H. Thorburn, United Gas & Fuel Co. of Hamilton, Ltd., Hamilton, Ontario, entitled "How Indus-

trial Gas Is Promoting Canada's War Effort." Lee Wilson, president, Lee Wilson Engineering Co., Cleveland, will speak on important equipment developments and their application to war production, and James E. Dare, Public Service Co. of Northern Illinois, as chairman of the Industrial Space Heating Committee, will sponsor a discussion on this subject. Short talks by industrial gas managers on "What Is Our Most Acute Industrial Gas Business Problem?" will close this session. Among those who will participate are: F. T. Brooks, Philadelphia Electric Co.; Frank S. Kelly, Jr., Arkansas Louisiana Gas Co., Shreveport; S. T. Olinger, The Cincinnati Gas & Electric Co., Cincinnati, O., and W. D. Thompson, The Laclede Gas Light Co., St. Louis.

Commercial Gas Session

The commercial gas men will also meet Thursday afternoon with Vice-Chairman Ben H. Gardner presiding. F. Russell Howe, Rochester Gas & Electric Corp., will speak on sales and service of gas food service equipment and a group of commercial gas managers will take part in a symposium on "What Is Our Most Acute Commercial Gas Problem?" Among those who will take part in the symposium are J. R. Delaney, The Cincinnati Gas & Electric Co., Cincinnati, and Harry M. Woolman, Jr., Jersey Central Power & Light Co., Asbury Park. A special feature of this meeting will be a Deep Fat Frying Forum with these participants: John L. Hall, Southern California Gas Co., Los Angeles; Raymond Little, Equitable Gas Co., Pittsburgh; Samuel E. Tappan, J. C. Pitman & Sons, Inc., Lynn, Mass.; and Ray Trowbridge, Seattle Gas Company.

A conference dinner will be held Thursday evening at the Hotel William Penn.

The important subject of "Immersion Tubes for Industrial and Commercial Heating" will lead off the Friday general session. F. E. Vandaveer, A. G. A. Testing Laboratories, Cleveland, and O. M. Olsen, Sellers Engineering Co., Chicago, will present papers from different angles. Other high spots on this program are: "Drying Processes with Gas Heat," Don D. Beach, Atlanta Gas Light Co.; "Commercial Gas Equipment in Military Establishments," John W. McNair, Standard Gas Equipment Corp., Baltimore; and "What About Industrial and Commercial Water Heating in

Defense?" G. M. Rohde, Jr., Ruud Manufacturing Co., Pittsburgh.

Dr. Ralph Cooper Hutchison, president of Washington and Jefferson College, Washington, Pa., is the feature speaker for the Friday luncheon.

Simultaneous industrial and commercial gas sessions will again take place on Friday afternoon. W. Trinks, Carnegie Institute of Technology, Pittsburgh, will speak on "Gas in the All-Out Industrial Effort" to open the industrial gas meeting which will be conducted by Carroll B. Mershon, The Manufacturers Light & Heat Co., chairman of the Program and Arrangements Committee. Of special interest at this meeting will be a Metal Treating and Melting Forum sponsored by the Metal Treating and Melting Committee, Robert C. LeMay, The Connecticut Light & Power Co., chairman. A Forum on New and Improved Industrial Heating Processes and Equipment led by Lawrence E. Biemiller, Consolidated Gas Electric Light & Power Co. of Baltimore, will close this meeting.

The concluding commercial gas session, Friday, includes the following highlights: "Design and Engineering Developments in Hotel and Restaurant Equipment," Edwin A. Jones, Majestic Manufacturing Co., St. Louis; "Stretching the Life of the Commercial Appliances on Our Lines"; and a Food Service Equipment Forum sponsored by the Food Service Equipment Committee, Harry M. Woolman, Jr., Jersey Central Power & Light Co., chairman.

Various committee meetings of the Industrial and Commercial Gas Section will be held during and following the Conference.

Gas Engine Census Being Made

G. R. WALTON, United Gas Pipe Line Co., Houston, chairman of the A. G. A. Gas Engine Power Committee, Industrial and Commercial Gas Section, announces that the annual gas engine census questionnaire has been mailed to natural gas companies and manufacturers of gas engines. Data compiled from replies will be included in the annual report of the committee. So that this part of the report may be as complete as previous years and of maximum usefulness during the emergency, it is urged that these forms be returned quickly.

Food Service Equipment Program Is War-Slanted



H. M. Woolman, Jr.

tunity offered to assist in the preparation of food required by our armed and civilian forces during the war period.

Proper gas equipment for preparation of food in quantity for war workers is one of the timely subjects being considered. To assist gas companies in making proper field surveys and adjusting sales to present emergency conditions, the committee is analyzing the part of gas equipment in the various divisions of the food service field. To supplement these data, a study of competitive conditions affecting the food service equipment field is being made.

With an eye to the future the committee is investigating the possibility of coordinating sales and advertising efforts for a

national campaign or contest in commercial cooking establishments.

Mr. Woolman's co-workers are: Walter Anderson, Boston Consolidated Gas Co., Boston; D. J. Brogan, The G. S. Blodgett Co., Inc., Burlington, Vt.; Walter D. Crouch, Robertshaw Thermostat Co., New York; J. B. Druse, Milwaukee Gas Light Co., Milwaukee; W. H. Frick, American Stove Co., Cleveland; J. M. Guillory, New Orleans Public Service Inc., New Orleans; Edward M. Hahn, Kokomo Gas & Fuel Co., Kokomo; Charles Hanthorn, The Philadelphia Gas Works Co., Philadelphia; Terry Hart, Nashville Gas & Heating Co., Nashville; F. Russell Howe, Rochester Gas & Electric Corp., Rochester; Roger Karcher, Michigan Consolidated Gas Co., Detroit; J. M. Lynn, Jr., Dallas Gas Co., Dallas; A. O. Leech, Portland Gas & Coke Co., Portland; Frank S. Paxton, Kansas City Gas Co., Kansas City; E. J. Shermire, Detroit-Michigan Stove Co., Detroit; H. A. Sutton, Public Service Electric & Gas Co., Newark; Ray Trowbridge, Seattle Gas Co., Seattle. Messrs. Sutton, Hanthorn and Howe were appointed sponsors for organizing details of the committee's work.

Reports of the committee's work will be made at the A. G. A. Industrial and Commercial Gas Sales Conference, in Pittsburgh, March 12 and 13, 1942.

volume water heating developments and applications.

Working under the able leadership of Chairman Beck of The Brooklyn Union Gas Co., on the committee's effort to improve dish washing sanitation methods are: Lawrence J. Bour, Scranton-Spring Brook Water Service Co., Scranton; Thomas Callahan, Ruud Mfg. Co., Long Island City, N. Y.; Julian E. Clark, Atlanta Gas Light Co., Atlanta; H. H. Gieselman, The Lacled Gas Light Co., St. Louis; Walter Groth, The Burkay Co., Springfield, Mass.; A. V. Leudemann, Mears-Kane-Ofeldt, Inc., New York; Merle Martin, Public Service Co. of Indiana, Indianapolis; Henry F. Orr, The Burkay Co., Toledo; G. M. Rohde, Jr., Ruud Mfg. Co., Pittsburgh; and Dr. G. R. Taylor, Scranton-Spring Brook Water Service Co., Scranton.

The committee expects to present data of immediate value at the A. G. A. Industrial and Commercial Gas Sales Conference in Pittsburgh, March 12 and 13, 1942.

Immersion Heating Research Begun

JOHN W. BATTEN, chairman of the A. G. A. Committee on Industrial Gas Research, announces that the committee has organized a new industrial gas research project to cover a thorough investigation of the possibilities of immersion tube heating of liquids with gas in industrial and commercial applications. The project has been assigned to the A. G. A. Testing Laboratories and work has been started.

Although the immersion tube method of heating liquids in the past has been used in factory heating processes, is now being installed in war production factories, and is incorporated in certain types of commercial gas appliances, notably deep fat fryers, scientific data on which to base correct engineering designs are lacking. Furthermore, determination of the optimum performance of immersion tubes operating under different conditions offers a broad field for constructive research, as does also the subject of minimum sizes, that will prove practical.

A complete working outline covering this project has been approved by the Committee and will be followed by the Laboratories.

Industrial and commercial gas men in general have indicated to the committee their interest in this research work, and a group of equipment manufacturers in these fields have placed their shops at the disposal of the Laboratories in connection with any field work required during the life of the project.

This is the forty-seventh research project sponsored by the Committee on Industrial Gas Research under authorization of the Executive Board of the American Gas Association.

Sanitation—1942 Watchword of Volume Water Heating Committee



G. C. Beck

Commercial Gas Section. The committee's aim in its current work is to aid the widespread movement to educate the public to the importance of sanitation in maintaining health.

To achieve this objective the following steps are being taken:

1. Various members are being assigned to the preparation of material on specific subjects, such as: importance of hot water in public eating places in preventing a possible "flu" epidemic during

the war period; the field for commercial and industrial water heating; and the need for hot water in washing beer glasses. This information will be broadcast either through the A. G. A. MONTHLY, through letters, or by discussion at the Industrial and Commercial Gas Sales Conference.

2. Plans are being made to present the story of gas water heating to the American Public Health Association at their 1942 Convention. The value of sponsoring manufacturers' displays at this convention is being called to the attention of the Water Heater Division of the Association of Gas Appliance and Equipment Manufacturers.
3. Organizations in the brewing industry are being approached to secure cooperation in encouraging greater use of hot water for washing beer glasses. Individual brewers have indicated their desire to see such a movement started.
4. The committee will communicate with the proper government officials to offer its services in applying current data on



Direct bisque firing of ceramic kilns with radiant refractory cup gas burners—pioneered last year, under the sponsorship of the Committee on Industrial Gas Research, in the advanced 125-foot circular bisque kiln at Lenox, Inc., Trenton, N. J., has already been applied by other ceramic plants to no less than 13 kilns (5 large circular units, 4 continuous straight-through types, and 4 periodics). The latest contracts announced by The Selas Company, Philadelphia, builder of direct-radiant kiln-firing systems using this advanced firing method, cover 4 circular, 1 straight-continuous, and 2 periodic kilns.

Orchids this month to Boston Consolidated Gas Company for its fine industrial gas war-window display. Illustrations of big-production gas furnaces in government arsenals and a red, white and blue background with marching soldiers furnishes a fine setting for this stirring message: "Gas is backing up America's fighting forces with fuel for Uncle Sam's war time industrial needs."

23 gas-burning boilers in 23 separate boiler rooms supply completely decentralized heat for Douglas Aircraft's new \$12,-000,000 air-conditioned windowless (blackout) factory at Long Beach, California.

Conservation. A Pennsylvania plant is delivering 16,000 cu.ft. of warm air per minute for building-heating from waste heat. Hot oil from the quenching tank is circulated through steam coils of an ordinary air conditioner.

"Blitz" rust with gas. Condensation in an unheated warehouse is a menace in the form of rust and a costly one! To fight it, the Columbia Steel Company, Portland, Oregon, installed 18 modern gas unit heaters in its large Portland warehouse of 1,700,000 cu.ft. capacity. Automatic and suspended from above to conserve space, their job is to safeguard vital defense materials!

Gas dehydration helps speed national defense production. Airplane control instruments, bullet-proof glass, binoculars for the Army and Navy, black powder, and plastic bonded plywood for airplanes are among the products whose manufacture is being facilitated by dehydration installations. Army and Navy parachutes are also being protected with dehydration from mildewing and rotting while in storage.

1,000 workers fed in 25 minutes! Rolling "vitamin wagons" in defense plants save 1,500 man hours daily. The supply kitchen turns out a daily average of 1,000 lbs. meat, 75 gals. of cooked vegetables, 150 gals. of coffee. Some gas load there!

With fat prices quoted at almost double those of a year ago, profit-minded fountain operators are turning their attention on both fat and fryer. Now's the time to check with your commercial customers on their practices. Do they strain fat daily, remove crumbs and foreign matter, and avoid excessive temperatures?

Whatever your special war problem, it's bound to be covered at the A. G. A. Industrial and Commercial Gas Conference in Pittsburgh this month—no less than 34 speakers are priming themselves to help you make the most effective use of gas in the war effort.

Today's automobiles will have to last, so one motor company is killing Demon Rust—one of the great hazards to long life—with paint and enamel. To assure proper drying, a gas-heated enameling oven has been selected to do the job.

Congratulations, Alta Ewalt Evans! As editor of SOUTHERN UNION NEWS, Alta has been reaping laurels galore—the 1941 achievement certificates for production and appearance plus election as Texas representative on the Board of Directors at the Southwestern Association of Industrial Editors' meeting. The NEWS took first place in a house organ contest sponsored by the Dallas Advertising League!

Chemical process plants use 40% of all fuel consumed by American industry.

Feeding for Victory. To help feed the Army, six California firms are dehydrating more than 200 tons of fresh garden foods daily. Automatically-controlled, gas-fired drying tunnels, are drying vegetables ranging from cabbage and potatoes to garlic. Says a government dehydration expert: "Gas is very efficient and 100% of the heat is applied to drying, without any losses. It is clean and burns without odor. It is especially convenient—available whenever desired and can be shut off the moment it's no longer needed."

INDUSTRIAL AND COMMERCIAL NATIONAL GAS ADVERTISING FOR MARCH

The National Advertising Committee of the Industrial and Commercial Gas Section, J. P. Leinroth, chairman, and F. B. Jones, vice-chairman, announces that full-page advertisements will appear in the trade and business magazines listed below during the month of March. These advertisements, which will appear in 16 publications reaching a total audience of 288,587, are prepared in co-operation with the Committee on National Advertising as a part of the Association's national advertising campaign.

Restaurant Field

AMERICAN RESTAURANT—For the best-fed fighters . . . the finest CHAIN STORE AGE cooking fuel . . . GAS!
(Fountain and Restaurant Section)

General Manufacturing

BUSINESS WEEK (Mar. 7)—Behind our armed forces . . . the steady flame of GAS!

Baking Field

BAKERS HELPER (Mar. 14)—For the best-fed fighters in the world . . . GAS baking!

Ceramic Industry

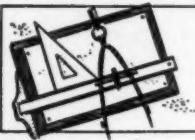
CERAMIC INDUSTRY—Vital in Peace . . . Crucial in War. . . . GAS shoulders arms for VICTORY!

Metals Industry

THE IRON AGE (Mar. 12)—Vital in Peace . . . Crucial in War STEEL (Mar. 23) . . . GAS shoulders arms for VICTORY!
METALS & ALLOYS
INDUSTRIAL HEATING
HEAT TREATING AND FORGING

Hospital Field

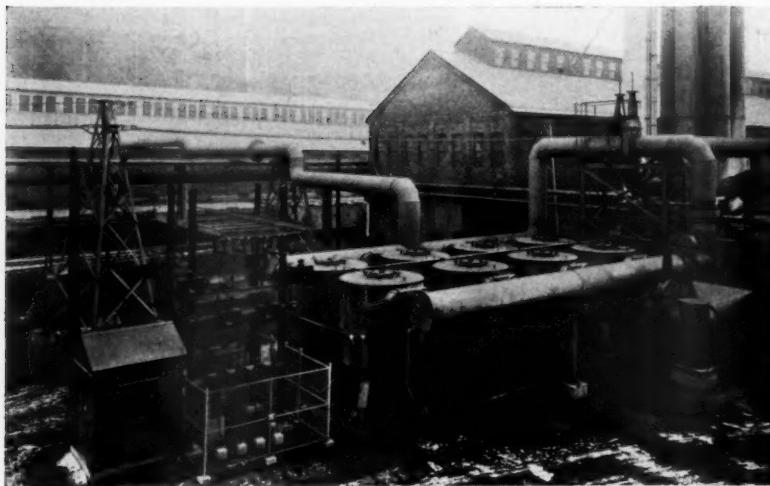
MODERN HOSPITAL—In Military Hospitals, too, GAS cooking plays its vital role!



Technical SECTION

HAROLD L. GAIDRY, Chairman
J. H. WOLFE, Vice-Chairman
A. GORDON KING, Secretary

Electric Gas Treater for Removal of Nitric Oxide from Fuel Gas



Gum treater installation at Boston Consolidated gas plant, Everett, Mass.

As a part of the modernization and improvement program of the Boston Consolidated Gas Company a Koppers electric treater for removal of nitric oxide from gas distributed to the City of Boston and vicinity has been installed at the Everett, Massachusetts plant. The gas treated is largely coke-oven gas but may contain as much as twenty-five percent water gas during the winter season. Before describing the apparatus at Everett a brief review of the purpose and principles of the electric treater may be in order.

It is well known that even in well regulated coke-oven and water gas plants the gas may contain as much as one part per million by volume of nitric oxide. Also, there are present in these gases small amounts of oxygen. Under ordinary conditions the nitric oxide (NO) slowly oxidizes to nitrogen peroxide (NO_2) which reacts very rapidly with certain hydrocarbons in the gas to form a gummy or resinous material. The gum precipitates as a highly dispersed suspensoid and deposits wherever there is a quick change in velocity or baffling action as in pilot light orifices and gas pressure regulators.

In the electric treater the gas passes be-

Contribution of Gas Conditioning Committee,
H. D. Lehman, Chairman.

¹ W. L. Shively, E. V. Harlow, Transaction of the Electric Chemical Society Volume 69, Page 495, Year—1936.

By EARL V. HARLOW

Koppers Research Division
Koppers Company

tween a pair of electrodes where it is subjected to the energizing influence of a brush type corona discharge. Under these conditions oxidation of the nitric oxide is almost complete after about one second. The gum is formed and dropped out before the gas leaves the plant.

In principle and fundamentals of design the Boston treater is identical with that built for the Philadelphia Coke Company in 1935. The Philadelphia treater has been described in some detail in papers presented before the Electrochemical Society.¹

The Everett treater was designed for a maximum capacity of sixty million cubic feet per day. As shown in the accompanying photograph there are eight similar cylindrical shells housing eight exactly similar electrode assemblies. The shells are arranged in four parallel series of two shells each so that the gas flows through two shells in series and therefore passes through two electrode assemblies. There is a valve on the inlet and outlet of each series so that the shells may be put into or out of service by pairs in order to service them and to adapt

the plant capacity to seasonal changes in gas load.

Before entering the treaters the gas passes through a mist eliminator which is nothing more than a bank of corrugated baffles. This unit removes the greater part of condensation mist and spray from scrubbers before the treaters.

The discharge electrodes are made by passing a large number of pins, swaged to a sharp point at both ends, perpendicularly through a flat plate so that the pins, which are made to a close length of tolerance, project from the plate an equal distance on either side. The complementary electrodes are plane, smooth plates. In order to obtain the required electrode area a number of the pin-studded plates are mounted parallel on an insulated frame and alternated with the plane plates which are supported from the shell and, therefore, grounded.

Operation of Treaters

The treaters are operated on alternating current from a 38,000 volt transformer. The discharge or point electrode group in each of four shells is connected through a 10,000 ohm stabilizing resistance and a disconnect switch to one terminal of the transformer. The point or discharge electrode groups in the remaining four shells are connected through 10,000 ohm resistances and switches to the other terminal of the transformer. This arrangement places two point-to-plate discharge gaps in series in reverse order with reference to each other.

The discharge gaps are placed in series for the following reason: A single asymmetrical electrode pair operating in coke-oven gas or water gas tends to rectify the current, passing more current on the half cycle when the points are negative. By connecting two gaps in series and in reversed order there is always a point-negative condition in series with a point-positive condition and an asymmetrical current wave is drawn from the transformer.

The transformer has taps on the primary winding to give voltages from 34,000 to 38,000 in 1000 volt steps. An induction regulator is manually operated to regulate voltage between taps on the transformer. A reactor in the primary circuit further stabilizes the current.

A current transformer cut into the high-tension bus operates an ammeter and an

over-current relay. Operating these instruments from the high-tension line eliminates confusion due to tap changing and magnetizing current. In the primary circuit is an ammeter, volt meter and watt-hour meter. An auxiliary switch on the circuit breaker operates a horn as a warning signal when the breaker is opened by overload.

The electrical energy consumption is approximately 150 Kw. Hrs. per day for each pair of shells, or 600 Kw. Hrs. per day for the entire plant.

The treaters are located in the system between the liquid purification scrubbers and the oxide boxes used as catch boxes. Water gas which does not pass through the liquid purification absorbers, joins the coke-oven gas stream just before the mist eliminator.

Final proving tests have not yet been made but the treaters have been shown to remove over 95% of the nitric oxide when operating at 15% above the rated gas capacity. Routine measurements are made on the send-out gas in which the nitric oxide remains consistently low, but at this point the gas has passed through catch boxes and holders after leaving the treaters, and, therefore, the routine test is not an index of treater efficiency.

Gas Plant Protection

COMMENTING on letters received from England by Davis M. DeBard, vice-president, Stone and Webster Service Corp., the *Public Utilities Fortnightly*, Jan. 29, makes the following interesting statement on gas plant protection:

"Fortunately, the majority of gas holders and reservoirs operate with a water seal between the holder and the connecting feed main. Hence, if the holder is pierced by a bomb and its contents ignited, the gas may continue to burn from the jet caused by the bomb hole, but there is no risk of a blow back past the water seal."

"Cases are on record where such jet flames from bomb holes have been extinguished by men in asbestos suits pushing steel plates over the hole, which is then sealed with plastic clay—an effective temporary repair."

"The possibility of a plant being thrown out of operation by damage to control gear (as distinguished from the extent of damage to the plant itself) has not been overlooked. Duplicate control gear has been installed at points remote from the site of the original gear and coupled by means of pilot cables. With respect to transmission and distribution lines in vulnerable areas, "ring" mains and duplicate "ring" mains

have been constructed where the importance of the supply justifies, so as to localize the system damage."

Dresser Booklet Tells Defense Story

A BEAUTIFULLY laid out and hand-somely printed booklet, largely pictorial, has been issued by the S. R. Dresser Manufacturing Co., Bradford, Pa., to tell the story of "Dresser Industries in National Defense and Civilian Defense." It is filled with striking pictures of men at work in the Dresser company and its subsidiaries, The Bryant Heater Co., Cleveland; Clark Bros. Co. Inc., Olean, N. Y.; and Pacific Pump Works, Huntington Park, California.

Designed to interpret their contribution to the national welfare, it fosters a better understanding of men, machines and methods behind the products of these companies. In the words of President H. N. Mallon, president, the companies "are geared to the needs of all-out national defense, yet each is striving hard to supply products essential to the maintenance of vital civilian services, such as gas, water, oil, etc."

Technical Men Discuss Defense Problems



A. G. A. Technical Section Committee on National Defense at New York meeting, January 26

This photograph was taken at the luncheon meeting during the all-day session of the Technical Section defense group which was followed the next day by committee meetings to arrange technical conference programs. The Technical Section's Defense Committee, headed by Dorr P. Hartson, chairman, and Harold L. Gaidry, vice-chairman, has offered its services to the Committee on War Activities and will continue its studies of air raid protection methods, blackouts, plant practice and allied subjects. In the photograph are, left to right: J. M. Beall, Editor *A. G. A. MONTHLY*; C. W. Person, A. G. A. Director of Publicity & Advertising; L. E. Knowlton, Providence; L. W. Tuttle, Oak Park, Ill.; E. J. Devlin, Brooklyn, N. Y.; R. J. Sheridan, Brooklyn, Chairman, Chemical Committee; K. Fuery, A. G. A.; S. J. Beale, New York; R. D. Williams, Troy, N. Y.; F. B. Cadmus, New York; E. W. Zimmerman, Everett, Mass., Vice-Chairman, Gas Production Committee; A. Gordon King, Secretary, Technical Section; H. B. Noyes, Washington, D. C.; R. E. Kruger, Rochester; J. H. Wolfe, Baltimore, Vice-Chairman, Technical Section; E. Holley Poe, Secretary, Natural Gas Section; Gladys Hanshaw, A. G. A., New York; D. P. Hartson, Pittsburgh, Chairman, National Defense Committee (Technical Section); H. L. Gaidry, New Orleans, Chairman, Technical Section; George S. Hawley, Bridgeport, President, American Gas Association; Major Alexander Forward, Managing Director, American Gas Association; Guy Corfield, Los Angeles; W. Culver Morris, New York A. G. A. Representative on National Technological Civil Protection Committee; Otto Reiner, Newark; H. W. Nicolson, Newark; Frank A. Engel, Elizabeth, N. J.; C. S. Goldsmith, Brooklyn, Chairman, Distribution Committee; A. G. Ford, Aurora, Ill.; E. F. Coffman, Camden, N. J.; E. M. Bliss, Harrison, N. J.; L. K. Richey, Detroit; Prof. Wilbert J. Huff, U. S. Bureau of Mines, College Park, Md.; S. G. Page, Pittsburgh, Pa.; Jean Y. Ray, Richmond, Va., Chairman, Committee on Operation of Public Utility Motor Vehicles; E. L. Sweeney, Everett, Mass., and J. F. Antes, Brooklyn



Laboratories

GEORGE E. WHITWELL, Chairman
R. M. CONNER, Director
W. H. VOGAN, Supervisor, Pacific Coast Branch

Automatic Ignition

PART II

AUTOMATIC IGNITION AFFECTED BY ELECTRICAL MEANS

Use of electrical devices for igniting gas automatically has been well established for years on certain types of domestic and industrial gas-burning equipment, although in the former field electric ignition has not been widely employed. A number of basic differences exist in the design of electrical applications employed for this purpose. All systems involve either a hot wire (resistance coil) or an electrode sparking unit. Either type may be applied so as to ignite a pilot flame or the main gas supply directly. In both cases, suitable safety control can and must be provided. However, the nature of the safety control differs radically, depending on whether the electrical means lights a pilot or the main burner. In the former instance a simple thermally actuated automatic pilot suffices while if the main burner is lighted directly, a time delay mechanism must be introduced into the safety control system so that gas will be automatically shut off within a safe time after the lighting cycle is initiated if ignition of the main gas supply does not take place.

Principles of Electrical Systems

On most systems incorporating an intermediate pilot which is lighted by electrical means and, in turn, ignites the main burner, the following sequence of events occurs with either hot wire or sparking types:

1. The primary gas control, for example, a manually operated gas valve or a thermostat, is opened or actuated to supply gas to the appliance manifold and pilot burner but not to the main burner due to interference of the automatic pilot valve.
2. The same operation closes an electric circuit, thereby energizing a hot wire, usually through a step-down transformer or causing sparking between electrodes through the use of a high tension transformer. Ignition of pilot gas occurs.
3. Upon ignition of the pilot the thermal element of the automatic pilot, located adjacent to the hot wire or electrodes, becomes heated and automatically opens the automatic pilot valve, thereby admitting gas to the main burner, or burn-

- Mr. Conner's comprehensive discussion of automatic ignition is being published in two parts. Part I, in the February issue, covered two types of ignition devices, namely, cold catalysts and constantly burning gas pilots.
- Part II, in this issue of the A. G. A. MONTHLY, is devoted entirely to electrical ignition devices.

By R. M. CONNER

Director, A. G. A. Testing Laboratories

ers, this gas in turn being ignited by the intermediate pilot.

4. On many types movement of the thermal element opens the electrical circuit either before or after the automatic pilot valve is opened.

At first glance it might appear that electrical ignition systems are comparable to conventional standing or constantly burning pilots in conjunction with an automatic safety pilot insofar as safety aspects are concerned. However, with automatic electrical igniting means, extinction of the main and pilot burners introduces an ignition source that might prove hazardous unless adequate safety provisions are made. A consideration of these provisions is interesting inasmuch as they are important in the overall safety picture.

Referring to foregoing item "4," it will be noted that opening of the electrical sys-

tem (breaking of contact points) may occur either before or after the automatic pilot valve opens to admit gas to the main burner. Obviously, if the electrical circuit opens after the automatic pilot valve opens during the heating cycle, on the reverse cycle, that is, with the cooling or reverse motion of the thermal element resulting from extinction of the pilot flame, the electrical circuit will be closed and an ignition source introduced before the automatic pilot valve has closed. Hence, a condition is produced where an electrical ignition source is automatically provided before the safety valve has operated to close off the main gas supply. If this happens after a sufficient period of time, an explosive air-gas mixture may have accumulated. However, on all systems with which this sequence of events is possible, the action of the thermal element is extremely fast and after extinction of the pilot flame the element motion will bring about re-energization of the electrical circuit and re-ignition of the pilot within 10 seconds. In practically all cases this time interval is sufficiently short to eliminate any possibility of explosion or excessive concussion. However, our approval requirements provide for actual tests under this sequence of events and no concussion or objectionable noise of ignition is permitted.

If the time relationship of safety valve closure and re-energization of the electrical circuit is such that the safety valve closes first after extinction of the pilot flame, a new factor is presented.* For example, if it is assumed that the safety valve closes 2 minutes after failure of the pilot

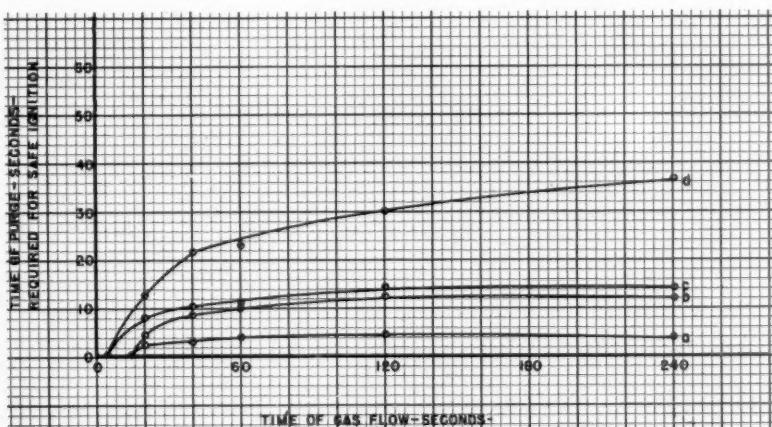


Fig. 4. Study of inflammable conditions in range oven C

* This factor is present where the thermal element action of the automatic pilot is relatively slow. If action is as fast as described in the first case, this factor would be only of academic interest. However, in order not to restrict use of only certain types of automatic pilots with electrical ignition means, this factor assumes practical importance.

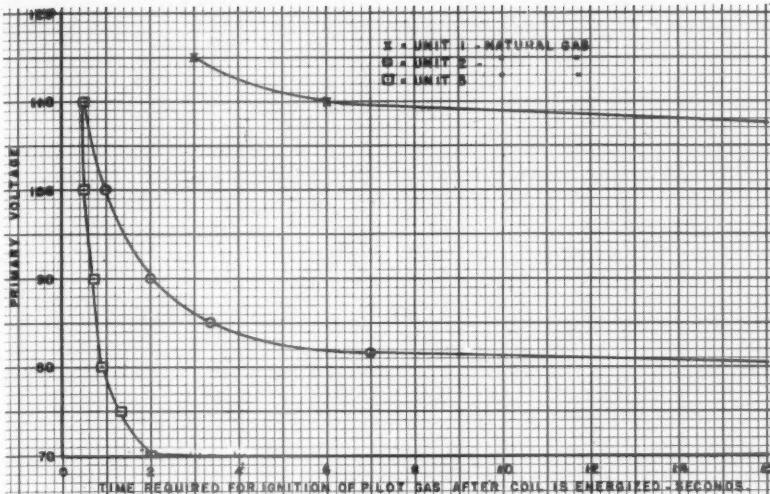


Fig. 5. Effect of primary voltage on ignition performance of resistance coil type electric igniters

flame, it is probable that an explosive air-gas mixture would be contained in the combustion chamber at the time the safety pilot valve closes. Obviously, the automatic ignition system should not be designed so that the electrical circuit would be re-energized and an ignition source introduced before this mixture could be dissipated. In other words, a purge cycle of suitable length must be provided after the safety valve closes if the time required for this action is more than a very few seconds.

Investigations made at the American Gas Association's Testing Laboratories on range ovens disclosed that a rather definite relationship exists between the length of purge cycle necessary to prevent violent ignition upon lighting and the length of time main gas has been flowing prior to the start of the purge cycle. The curves of Figure 4 illustrate the type of data obtained. On this particular range oven, the flue outlet was blocked to provide as extreme conditions for test as possible. These curves show the purge time required after any given length of time of main gas flow from 0 to 4 minutes (240 seconds) to ensure ignition without concussion. Curve "a" presents data obtained when the ignition source only was provided at the end of the purge cycle and neither pilot nor main gas was turned on. Curve "b" is the purging time for the same condition but with the main gas turned on at the end of the purge cycle, while curve "c" shows the required purge period with the electrical hot wire re-energized and the pilot gas turned on at the end of the purge cycle. Curve "d" presents similar data except that both main and pilot gas were turned on at the end of the purge cycle. The relative position as well as shape of these curves varied for different range ovens but in general the test condition represented by curve "d" was the most severe for gas flow periods of 60 seconds or

longer. Referring to this curve in Figure 4, it will be noted that if main gas flowed for 60 seconds a purge cycle of 23 seconds was required to prevent unsatisfactory ignition. On the basis of these and considerable other data, it has been concluded that on the type of relatively slow acting automatic electrical igniting devices which must incorporate a purge cycle for safe operation, the length of the purge cycle should be at least equal to the length of time main gas flows before purging. While, as indicated, these data were obtained on a range oven, they should be generally applicable due to the extreme test conditions imposed.

One of the interesting aspects of automatic electrical ignition devices is the effect of line voltage variation on their operating characteristics. Recently, new data on this subject have been collected and typical results are shown in Figure 5 for coil type igniters. These data indicate the feasibility of designing hot-wire electric ignition systems so that their effectiveness is not lost at voltages as low as might rea-

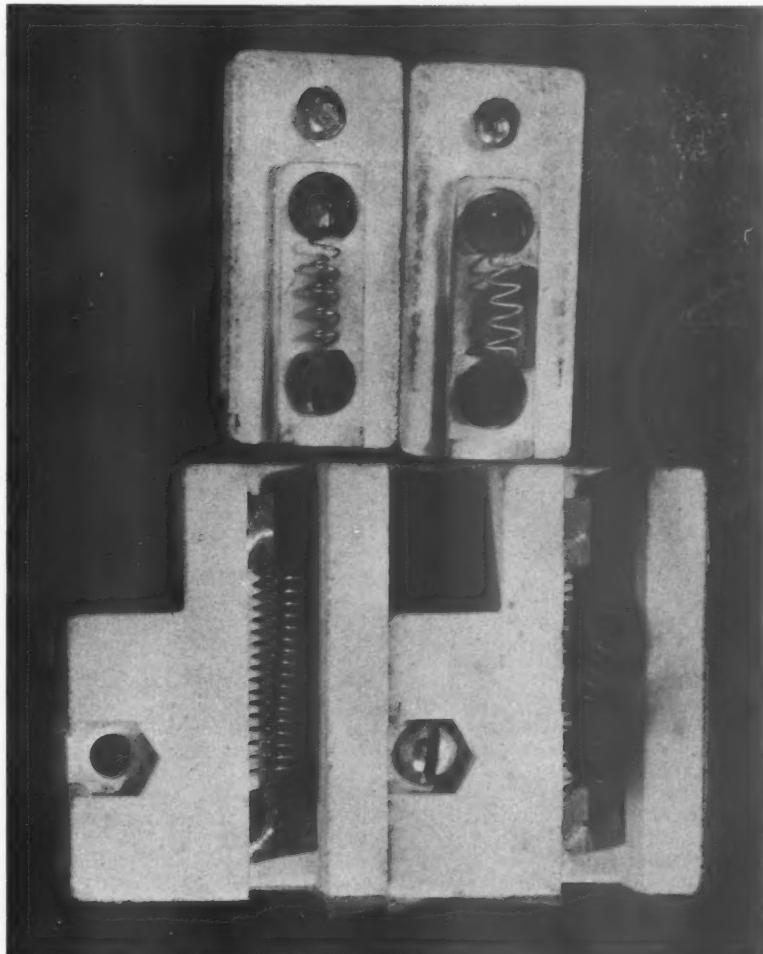


Fig. 6. Effect of continued operation on two types of ignition coils

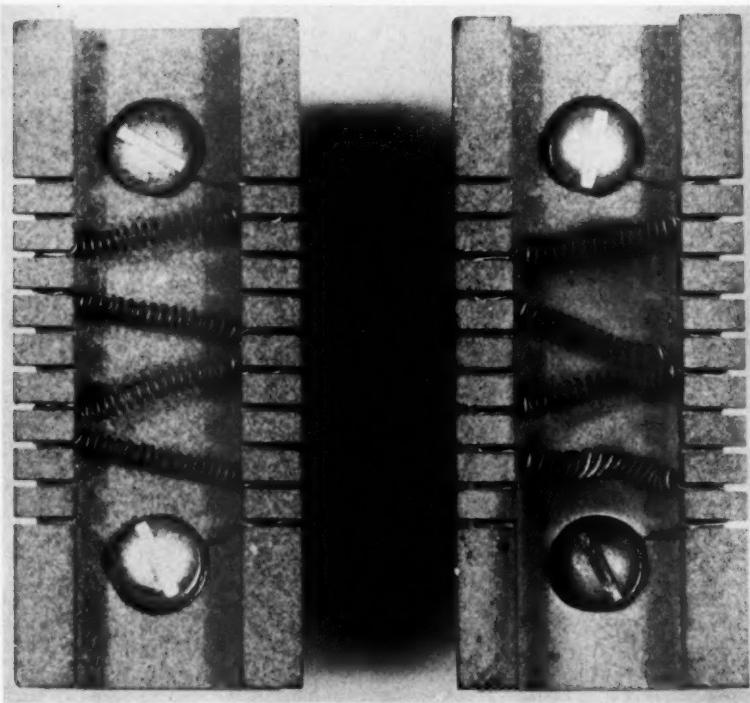


Fig. 7. Effect of continued operation on third type of ignition coil

sonably be expected (100 V). Conversely, other makes as typified by "1", show a decided impairment in performance at voltages below 110. Apparently this particular device provides a sufficiently high temperature at voltages of 110-115 but with a slight decrease below these values the temperature of the coil decreased below the ignition temperature of the air-gas mixture provided. The performance of resistance coil "3" is particularly interesting, since the hot wire consisted of platinum and as a consequence the catalytic effect was quite noticeable. Even at voltages as low as 65, satisfactory ignition was effected due to the sudden and visible increase in temperature of the heated filament at the instant the air-gas mixture contacted it. Two spark igniters were studied in connection with determining effect of voltage variation and satisfactory ignition was obtained with one at voltages as low as 83 and the other as voltage decreased to 95. The foregoing data seem to demonstrate conclusively the feasibility of designing hot-wire and spark igniters which will operate effectively at as low voltages as are likely to be encountered.

Life characteristics of electrical ignition systems are, of course, of considerable importance. Naturally, field experience will provide the ultimate answer for any new types of electric ignition device. At the present time, spark igniters have demonstrated acceptable life characteristics under varied conditions of usage, while field data being accumulated on hot-wire types seem satisfactory. These latter types, approved

as integral parts of domestic gas ranges, have demonstrated their ability to withstand 25,000 cycles of operation with no appreciable change in lighting performance. Figures 6 and 7 show photographs of three types of coils before and after continued operation tests. While oxidation is evident in all cases and sagging or distortion of the coil in others, each remained effective at the end of the continued test period.

A general comparison of electrical devices and standing gas pilots in the light of contemporary knowledge would seem to be appropriate. One of the first considerations in comparing electric with straight gas ignition systems is their relative cost of operation. To evaluate this factor properly, the type of appliance involved must be clearly understood. For example, on central heating gas appliances, the usefulness of gas consumed by the pilot has been a subject of extensive controversy. It seems reasonable to conclude that when an appliance is operating at or near to rated capacity, pilot consumption contributes to the heat output. In spring or fall, during periods when no heat is required in a dwelling, little useful heating effect may result from such consumption of gas. On the other hand in automatic storage water heaters, no appreciable loss results from constant burning pilots. This fact has been verified during domestic gas water heating research, results of which are presented in Bulletin No. 9—"Fundamentals of Domestic Gas Water Heating." Convenience does not appear to be greatly involved in this comparison inasmuch as both

types are completely automatic. In the case of central heating gas boilers and furnaces on which the standing pilot is turned on in the fall and off in the spring, electrical ignition may eliminate the need for additional service calls.

Electric ignition systems present some problems on which further study is indicated. Deterioration resulting from high temperatures and resultant oxidation is one factor. Voltage fluctuations may cause failures of the element due to high temperatures if the voltage increases and ignition failure if the voltage decreases. On spark type igniters, there is a tendency towards carbonization at the electrodes resulting in shorting of the air gap. Despite these mechanical and electrical problems, there is nothing fundamentally unsound connected with such devices. It is felt that they can be brought to a state of development comparable to straight gas systems and still retain their generally recognized advantages by the application of sound engineering principles.

A. G. A. Research

The Laboratories have conducted a considerable amount of research and experimental work on electric ignition systems. Most of these studies were for the purpose of developing suitable listing or approval requirements. At the present time requirements have been formulated which it is believed adequately cover all common types now commercially available and give reasonable assurance that they will function in a safe and satisfactory manner, and possess reasonable life expectancy. Studies of a more fundamental nature on electric ignition are now being considered by the Committee on Domestic Gas Research. If such an investigation is undertaken it should develop basic data on thermal-electric properties of igniting gas and other fundamental relationships involved and serve as a foundation for more sound and practical developments. It is most encouraging to note the progressive attitude which our industry is showing toward any new development which may result in an improvement of gas service to the public. Attention is now being directed by manufacturers, gas companies, and the American Gas Association, through research at its Testing Laboratories, to continued development of automatic ignition devices. It is sincerely hoped that the full potentialities of all types, as well as their limitations, will be completely set forth in the near future, so that the industry can provide the most satisfactory and economical automatic service technically possible at this time.

WAR DEVELOPS TALENT

A \$12-a-week London gas man in peace-time, now a leading signalman in the Royal Navy, has developed an unexpected art talent while confined aboard a submarine on desperate ventures. His pictures have such a quality of emotion that they have attracted considerable attention in the United States. His name is H. F. (Plum) Warner.

Approval Requirements Committee Honors R. B. Harper



R. B. Harper

AT a meeting held on October 22, 1941, the Approval Requirements Committee of the American Gas Association adopted a resolution to express its sincere and grateful appreciation for the services and leadership of R. B. Harper, its former Chairman.

Winner of the Beal Medal in 1931, highest technical award of the gas industry, the Walton Clark Gold Medal in 1938 for distinguished work in the chemistry and physics of the gas industry, and his part in the development, supervision, and direction of the research and testing laboratory of his company, form only a small part of Mr. Harper's accomplishments in the gas industry. As early as 1915 he headed the first committee which proposed a national testing laboratory where nationally acceptable standards could be developed and applied in behalf of the gas industry and its consumers. Moreover, he actively participated in its establishment, serving on the American Gas Association's Testing Laboratories Managing Committee and Approval Requirements Committee since their inception in 1925.

Appointed in 1927

Appointed to Chairmanship of the Approval Requirements Committee in 1927, Mr. Harper guided the Laboratories standardization program through its greatest expansion and development despite depressions and recessions. In 1930 this committee became a Sectional Committee, Project Z21, of the American Standards Association. As a result, all gas appliance requirements were elevated from industry standards to national standards.

As a token of its acknowledgment of this distinguished record, the Approval Requirements Committee felt that a suitably engraved draft of its resolution bearing the signature of each member should be forwarded to Mr. Harper. It is significant to note that these signatures represent the wide interests Mr. Harper brought together in formulating this standardization program. They include not only leaders in the gas industry but representatives of such national consumer and general-interest organizations as the National Bureau of Standards, U. S. Bureau of Home Economics, American Home Economics Association, and American Institute of Architects, to mention only a few.

An appropriately engraved and illuminated leather-bound booklet was therefore prepared and presented to Mr. Harper on

January 15, 1942. The complete text is given below:

"WHEREAS, R. B. Harper, Vice-President of The Peoples Gas Light and Coke Company, Chicago, Illinois, identified for many years with the progress of the gas industry in standardization, testing and research, has found it necessary to resign from his many American Gas Association activities, and

"WHEREAS, he not only headed the first committee proposing definite recommendations for a national testing laboratories and standardization program for the mutual benefit of the gas industry and the public it serves, but also closely cooperated in their establishment, serving on the American Gas Association's Laboratories Managing Committee and Approval Requirements Committee since their inception in 1925, and

"WHEREAS, he has served as Chairman of the American Gas Association Approval Requirements Committee since 1927 with courage and conscientious attention to this task, guiding the Laboratories to the high position of esteem and significance they now rightly occupy, and

"WHEREAS, through his endeavors he has brought about the development of some thirty sets of American Standards for gas appliances and their accessories covering nearly every type of residential heating use;

"THEREFORE BE IT RESOLVED by the American Gas Association Approval Requirements Committee that grateful and sincere acknowledgment be made of the

contributions of R. B. Harper to the advancement of American Gas Association's gas appliance testing and approval and research programs and that appreciation be expressed for his devoted service and courageous leadership, and

"BE IT FURTHER RESOLVED that members of this committee shall forward a suitably engraved draft of this resolution and their signatures affixed to R. B. Harper as a testimonial of their sincere appreciation and hope that he may soon again be more active in the promotion of these ideals."

"Cookin' on the Hot Top"

THOSE actually concerned with the net return of restaurant operations are always interested in the most profitable use of their cooking equipment. As is evident to many gas men, these operators either need more data, more education, or, not being in the kitchen enough themselves, cannot successfully get their cooks to use their equipment to its best efficiency.

"Cookin' on the Hot Top," just released, is an authentic, readable approach to this problem. Written and illustrated in an entertaining reader-catching manner, this 16-page booklet is divided into six chapters.

H. E. Marsolf, the author, is commercial representative of the Florida Public Service Company. Published by the Fenton Kelsey Co., 114 South Carroll Street, Madison, Wisconsin, "Cookin' on the Hot Top" is available at these prices: less than 10 copies at 25¢; 10 to 100 copies at 15¢; 100 to 500 copies at 12¢; 1000 copies at 10¢; larger quantities upon request.

HEAR YE! AMATEUR PHOTOGRAPHERS!

WE WANT PICTURES! Not just any pictures but striking photographs with unusual artistic and pictorial qualities. They must be pictures in some way connected with the gas industry. Here's our proposition. We hope you'll like it and send in samples of your work.

DURING this year the AMERICAN GAS ASSOCIATION MONTHLY is renewing its offer of \$5.00 for each original photograph accepted for publication as a frontispiece illustration. This offer is open only to amateur photographers who are members of the Association or who are employed by member companies.

PHOTOGRAPHS will be selected principally for their pictorial excellence but must be related to the gas industry. Candid camera shots of men at work are particularly acceptable. Glossy black and white prints not less than 8" x 10", unmounted, are preferable. Vertical rather than horizontal pictures are preferred although not required. Please look through past issues of the MONTHLY before taking your pictures.

THE MONTHLY will not accept photographs which have appeared in other publications but will place no restrictions on their use following appearance in the MONTHLY.

IT IS SUGGESTED that company camera clubs or other photographic groups consider the possibility of sponsoring local "print nights," with the winning prints being submitted as above described.

PLEASE SEND all photographs to: American Gas Association Monthly, 420 Lexington Ave., New York, N. Y. Be sure to exercise care in wrapping so that pictures will not be bent or otherwise damaged.



The Amarillo Gas Company, Amarillo, Texas, backs up its firm belief in the program of the American Gas Association Testing Laboratories by printing this illustration on the back of all out-going envelopes. The Seal is printed in color as is the band at the bottom. Approximately 320,000 of these envelopes are used every six months.

Gas Appliance Directory Is Improved

CONSISTENT with the A. G. A. Testing Laboratories' policies to maintain the Directory of Approved Gas Appliances and Listed Accessories in as complete and concise form as possible, the January 1, 1942, issue has been considerably revised. Changes made should greatly increase its value.

Reducing the total number of lines of listing in some instances as much as one-third, one of the major changes has been relisting of equipment certified for liquefied petroleum gases as well as for natural and manufactured gases. When models have been tested and approved at the same ratings for all these gases it was possible to eliminate their repetition under appropriate headings.

Another change which deserves special mention was first incorporated in the October 1, 1941, Directory. Domestic gas ranges were classified for the first time therein according to the manner in which they were tested at the Laboratories to insure safe and satisfactory wall temperatures.

It is of interest to note that despite these changes which have decreased the total number of pages in the current Directory over the last issue, it represents an increase of nearly 15% over the corresponding January, 1941, issue. Totaling 313 pages, it is the largest January issue published by the Laboratories.

New Requirements for Connectors

On February 4, mimeographed copies of proposed American Standard listing requirements for gas appliance connectors of flexible metal tubing and fittings were distributed to all manufacturers of such equipment. They will become effec-

tive January 1, 1943. Printed copies will be supplied at a later date.

These requirements represent initial standards developed for this type of accessory. Development of flush-to-wall type domestic gas ranges indicated a need for a more flexible type of gas conduit than formerly available to permit more convenient attachment to house piping. The present requirements were prepared in anticipation of increasing demands for such products. They cover gas appliance connectors of braided or non-braided flexible all-metal tubing of $\frac{1}{2}$ to 1 inch nominal internal diameter designed for this purpose. The various tests included adequately cover their construction and performance under the severest condition of use to which they may be subjected.

Manufacturers desiring to do so may submit their products for test under these new standards in advance of the date on which they become effective. In such instances, Certificates of Listing will be dated as of January 1, 1943, rather than at the time of completion of test as is customary. Additional information may be obtained by addressing the American Gas Association Testing Laboratories, 1032 East 62nd Street, Cleveland, Ohio.

Rate Adjustments

(Continued from page 92)

it may be well for gas company executives to keep the commission members and staff advised by informal conferences from time to time of the problems confronting them and the efforts they are making to meet them. If need for rate adjustment arises the necessities of the situation are then likely to be better understood.

(Editor's Note—It is understood that the outline contained in this article is applicable to both manufactured and natural gas utilities.)

Brooklyn Union Employees Break Record in Bond Drive

IN the first week following announcement of a pay roll-deduction plan, employees of the Brooklyn Union Gas Company subscribed for more U. S. Defense Bonds than they did during all of the Liberty and Victory Loan campaigns of the first World War, President Clifford E. Paige announced Feb. 3.

Already more than 1,400 employees have asked the company to make deductions and have committed themselves to buy upwards of \$100,000 worth of bonds during the current year. All company officers and department heads have subscribed.

During the first week of the enrollment 815 employees subscribed and their commitments, in terms of the maturity value of the bonds, totaled \$64,150. This was \$7,628, or 13%, above the employees' total for all the campaigns of World War I.

Brooklyn Union's pay roll-deduction plan is being directed by a committee consisting of Vice-President Hugh H. Cuthrell, chairman, Secretary Richard B. Loomis and Assistant Vice-President George F. B. Owens. Working with this committee are 48 employees who serve as committee representatives in the various departments and divisions.

The plan first was announced in the company's employee paper, *Gas News*. A meeting then was called at which the plan was explained to committee representatives who were supplied with folders describing U. S. Defense Bonds.

Personnel Service

SERVICES OFFERED

House Heating Expert—young married man thoroughly experienced in sales, engineering, and installations of gas heating and air conditioning systems, desires position—preferably with utility company. Has had 11 years' experience with the largest manufacturer of gas heating and air conditioning equipment and 3 years with utility company (37). 1434.

As Salesmanager salesman, purchasing agent, or factory representative. Twenty-three years' experience in practically every branch of the companies in greater New York. 1435.

Distribution Superintendent or Engineer—extensive experience with leading natural and manufactured gas properties on construction, operation and educational activities; B.S. and M.S. degrees in engineering; excellent references; employed but desire change with more responsibilities. (37). 1437.

Eleven years gas appliance sales-promotion and advertising experience now available. Retail selling in New York City utility for 5 years followed by 4 years in Eastern states for maker of water heaters and h.h. units. "Dispossessed by defense" and desire new industry connection. (35), married, draft 3-A, can locate anywhere. 1438.

Heating Sales Engineer, with exceptionally well rounded experience in appliance sales. Twenty years industrial, househeating and other appliance experience with natural and manufactured gas including supervision and training of men and installing of equipment. Desire to make contact with utility or some appliance company. (49), graduate. 1439.

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